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KENT COUNTY COUNCIL

EDUCATION COMMITTEE

ANNUAL REPORT

OF THE

SCHOOL MEDICAL OFFICER

For the Year 1936

CONSTANT PONDER, M.A., M.D., D.P.H.
School Medical Officer

PRINTED BY
F. A. CLEMENTS (CHATHAM) LTD., MEETING HOUSE LANE, CHATHAM

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KENT COUNTY COUNCIL

MEMBERS OF THE KENT EDUCATION COMMITTEE, FEBRUARY, 1937

COUNTY COUNCIL MEMBERS.

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Cornwallis, Rt. Hon. Lord.
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Gouge, G.
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Hardy, E. (*ex-officio*).
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Hodes, F. P.
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Redman, W. C.
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The Rt. Rev. Bishop of Dover.
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Leedal, Rev. J. J.
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Powell, Rev. Canon H. T.
Rendel, Miss L. M.
Sloman, H. N. P.
Toke, L. A. St. L.
Whitehouse, F.

Public Health Department,
Sessions House,
Maidstone.
24th February, 1937.

To the Chairman and Members of the Kent Education Committee

Mr. Chairman, My Lords, Ladies and Gentlemen,

I have the honour to submit herewith the Annual Report upon the work of Medical Inspection and Treatment of School Children in the County of Kent for the year ended 31st December, 1936.

My appointment as County and School Medical Officer dates from 1st August, 1936, and therefore a large proportion of the work detailed in this Report was carried out during a period when my predecessor, Dr. Greenwood, was in charge. His resignation through ill health and his death which took place shortly afterwards are matters of deep regret and I feel sure that I am speaking for the whole of the Medical Staff of the Kent Education Committee in saying that we preserve a lasting memory of his kindly and considerate administration.

Immediately on taking up responsibility for the Health Services of the County I realized that the burden of administration in a County such as Kent has become so heavy at the present time that to develop and maintain an efficient organisation, it is essential that much of the responsibility for detail should be delegated to Senior Assistant Officers. Accordingly I divided the work into six sections, viz. School Medical, Tuberculosis, Maternity and Child Welfare, Hospital Administration, Laboratory Services, and General (to these was subsequently added an additional branch, viz. Air Raids Precautions) and proposed that each section should be under the charge of a suitably qualified assistant officer.

This proposal was submitted to the Public Health Committee where the position was recognized sympathetically, and I was authorised to appoint senior officers to take charge of the sections with which this Committee is specially concerned.

Your Committee also supported a similar recommendation in regard to the School Medical Service and, accordingly, by the appointment of a School Ophthalmic Surgeon to undertake treatment in connection with eye defects in school children, Dr. Fox was set free to exercise a general administrative control over the work of this section. I am fortunate in that so capable and experienced an officer as Dr. Fox is available to fill this position.

The report which follows has been drawn up by Dr. Fox and I propose only to call attention to certain of the more important features embodied in it.

Your Committee has recognized the importance of adequate and early treatment being given to defective conditions in ear, nose and throat by appointing a part-time aural surgeon, Mr. T. P. Gill, to undertake this work at special clinics. He is assisted by a nurse, Miss F. Swanson, who has had special experience in this branch of work. The report upon his work on page 17 indicates that this new development is already appreciated and likely to be of great value.

Circular 1,550 (Ministry of Health) on the subject of the health of children under school age, draws attention to the fact that 16% of the children entering school are found to require treatment for some disease or defect and that in many cases these conditions could have been prevented from developing or could have been quickly cured, if adequate supervision of the health of the children had been exercised throughout the pre-school years. On examination of the position in Kent I found that the supervision of " toddlers " was to a certain extent lacking in thoroughness through shortage of staff and accordingly I recommended the Public Health Committee to appoint the necessary additional Health Visitors so that the full recommendations of the Minister in regard to the supervision of " toddlers " could be undertaken.

I wish to draw attention to certain special reports. On page 23 the important question of the final effect of dental treatment is discussed by Dr. Fox. It will be noted that there is some cause for concern when the result of this work is considered in relation to its effect on the health of the future adolescent. Too often, it would appear that while the condition of a child's teeth may be kept satisfactory by proper supervision and treatment, deterioration may take place rapidly after leaving school since there is no machinery available to ensure further supervision at a period when dental caries is especially likely to develop.

The report on page 32 by Dr. Jones, Senior Pathologist, on bacteriological questions concerning the supply of milk in schools raises important points and should be given careful consideration.

Interesting reports will also be found on page 42 by Dr. Tucker on Asthma in School Children where the general position is summarized : on page 45 by Dr. Selfe on Certain Exceptional Conditions Found in Children of School Age : on page 47 by Dr. Lessey where the question of " Fat Intolerance " is discussed : on pages 48 and 25 by Dr. Stableforth on " Faulty Posture " and the Dartford Speech Clinic : and on page 50 by Dr. Wolverson on the important subject of Subnormal Nutrition and Sleep.

Your Committee will be fully aware of the valuable work ancillary to the School Medical Service carried out by voluntary bodies and I should wish here to express my very grateful thanks for the help given, as in past years, by the National Society for the Prevention of Cruelty to Children, the Kent Council of Social Service, and the Kent Voluntary Association for Mental Welfare. I also wish to record the valuable co-operation and support given to our work by the teachers.

My staff have carried out their work smoothly and efficiently and I am grateful for their loyal support during the period since I have been in charge.

Finally I would thank your Committee for its sympathetic interest in our work and for the assistance it has given to me during the period of taking over this important and responsible duty.

I am, Mr. Chairman, My Lords, Ladies and Gentlemen,

Your obedient servant,

CONSTANT PONDER,

School Medical Officer.

KENT EDUCATION COMMITTEE.

School Medical Service

ADMINISTRATION.

THE STAFF.

SCHOOL MEDICAL OFFICER :

Constant Ponder, M.A., M.D., D.P.H.

CHIEF ASSISTANT SCHOOL MEDICAL OFFICER :

J. W. Fox, M.B., M.R.C.S., L.R.C.P., D.P.H.

ASSISTANT SCHOOL MEDICAL OFFICERS :

S. A. Tucker, M.B., B.S., M.R.C.S., L.R.C.P., D.P.H.
J. Selfe, M.R.C.S., L.R.C.P., D.P.H.
W. Lessey, M.D., L.R.C.P., L.R.C.S., L.R.F.P.S.
F. Wolverson, M.D., C.M., J.P.
Gladys Stableforth, M.D., B.S.
Nancy W. Holloway, M.R.C.S., L.R.C.P.
C. Campbell, L.R.C.S., L.R.C.P., L.R.F.P.S., L.D.S., D.P.H.
J. E. Cheesman, L.M.S.S.A., D.P.H.
Georgina B. Nicholl, M.B., Ch.B., D.P.H.
Gertrude Nicholson, M.R.C.S., L.R.C.P. (Commenced duty on 25th June, 1936).

ASSISTANT SCHOOL MEDICAL OFFICER (Aural) :

T. P. Gill, F.R.C.S. (Commenced 1st June, 1936).

SCHOOL OCULIST :

J. W. Fox, M.B.

ORTHOPÆDIC SURGEONS (part-time) :

H. E. Batten, F.R.C.S., L.R.C.P.
A. L. Moreton, M.S., M.B., B.S., F.R.C.S., L.R.C.P.
A. B. Beresford-Jones, M.S., M.B.
A. H. Todd, M.S., M.B., B.Sc., F.R.C.S., L.R.C.P.

SENIOR SCHOOL DENTAL SURGEON :

F. J. Saunders, L.D.S.

SCHOOL DENTAL SURGEONS :

H. Cantor, L.D.S.
L. F. Hayes, L.D.S.
W. W. F. Dawe, L.D.S.
F. A. Markham, L.D.S.
Miss M. E. O. Cross, L.D.S.
D. W. Lamb, L.D.S.
W. W. Nicholls, L.D.S.
P. Gausden, L.D.S.
Miss A. Smiley, L.D.S.
A. MacDougall, L.D.S. (Commenced 1st October, 1936).

CHIEF CLERK :

F. Meakin.

REPORT ON THE MEDICAL INSPECTION and TREATMENT of SCHOOL CHILDREN

BY

J. W. FOX, M.B., M.R.C.S., L.R.C.P., D.P.H.

On April 1st, 1936, the area of the administrative County for Elementary Education purposes was 897,784 acres, and the population was 678,690, of whom the average number on the roll of elementary schools was 79,610, the average attendance being 71,193. For Higher Education and general purpose the population was 1,330,550.

Particulars relating to schools, etc. in the area of the Committee on 31*st December,* 1936.

No. of Elementary Schools	194	Council
	251	Voluntary
No. of Elementary Schools	147	Urban areas
	298	Rural areas
No. of Departments	549	
School roll	49,901	Urban areas
	31,349	Rural areas
No. of Schools for Higher Education (including Technical and Day Trades schools)	55	
No. on roll Autumn term	17,353	

School Clinics.

No. of Minor Ailment Clinics	17
No. of Dental Clinics	44
No. of Ophthalmic Clinics	14
No. of Orthopædic Clinics	8
No. of Aural Clinics	11

There are 41 whole-time nurses and eleven dental attendants. There are also 59 part-time nurses undertaking school nursing. The total nursing staff for the purpose of the School Medical Service is estimated to be the equivalent of 16 whole-time nurses. A nursing training is not required of the dental attendants.

Dr. Ponder refers to the loss to the Committee resulting from Dr. Greenwood's retirement consequent on illness, and to his premature decease, but I may be permitted here to express my own sense of personal loss, after acting as his chief assistant on the School Medical side since his appointment in 1914.

The staff has been strengthened by the addition of another Assistant Medical Officer (Dr. G. Nicholson), and another Dental Surgeon (Mr. A. MacDougall). The need for more facilities for the treatment of diseases of the ear has become increasingly insistent during recent years, and Mr. T. P. Gill, F.R.C.S., was appointed to act as half-time Aural Surgeon to the Committee.

Owing to the growth of the dental staff, administration and supervisory work in this branch has also grown so that it was considered desirable to delegate the work as far as possible, and Mr. F. Saunders was promoted, as from 1st October, to act as Senior Dental Surgeon with administrative and supervisory functions. These duties occupy about one-third of his time.

Two other appointments have been made which do not operate until 1st January, 1937. They have been filled by Mr. G. B. Ebbage, M.R.C.S., L.R.C.P., D.O.M.S., Ophthalmic Surgeon, and Mr. M. Berry, L.D.S., Dental Surgeon. The first has become necessary to enable me to devote more time to administrative duties, and in order to render possible the development of your ophthalmic clinics on a wider basis. The second appointment could not be avoided owing chiefly to the large influx of population to the N.W. district of the County.

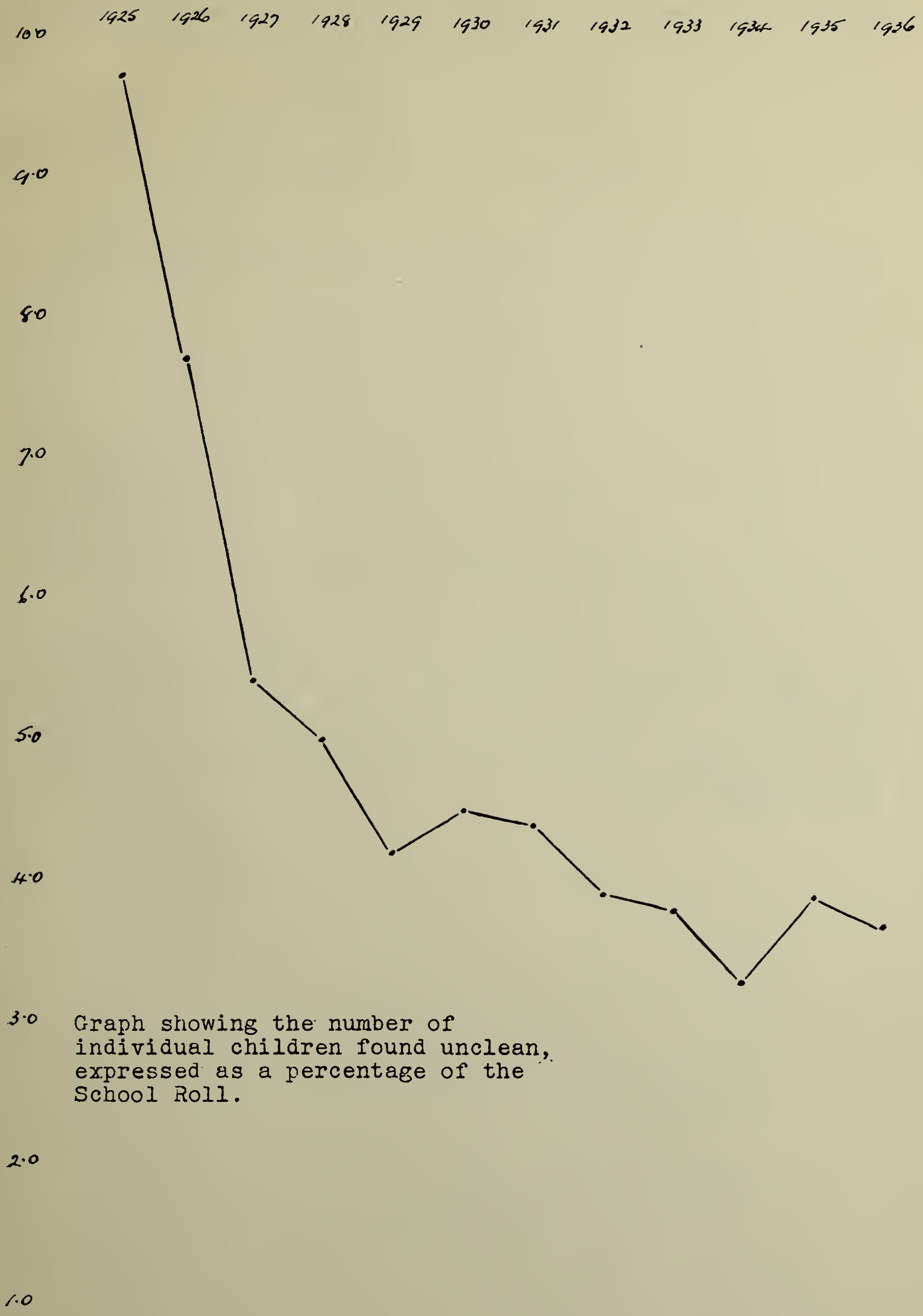
Co-ordination.—The various arrangements for securing effective co-ordination of the School Medical Service with other branches of the Public Health Service, with its own internal divisions, and with related activities have been detailed from time to time. On the whole, they have worked satisfactorily. It is hoped in the New Year to improve co-operation with the Maternity and Child Welfare Services, especially as there is hope that more adequate attention can be devoted to children between the ages of two and five years—a period during which many diseases and disabilities have their origin. In this connection, I may draw attention to Circular 1,550 of the Ministry of Health. Paragraph six contains the statement that " there is no doubt that, in general, the adequate supervision of the health of the pre-school child will be best secured if the responsibility for attending to the health of children, from birth up to school leaving age, is concentrated in the hands of one and the same Authority ". There is also a gap between the period covered by the School Medical Service and the beginning of National Health Insurance, which will have to be spanned. Continuity of medical history and/or treatment should be secured from birth to the age of eighteen. An important factor in securing co-ordination within the Health Service itself is the constitution of nursing areas, such that so far as possible each whole time nurse does the whole of the nursing work appertaining to her area.

Medical Inspection.—Medical inspection follows the lines laid down by the Board of Education. Every school is visited twice a year, and all entrants, children attaining the age of eight during the year and all leavers are examined, together with " specials " or children presented for inspection outside routine ages for special reasons. In addition, children found defective at a previous inspection, or marked for observation, are re-examined. Parents are gradually showing greater interest and attend the examinations in increasing numbers. Every endeavour is made to avoid dislocation of school work as much as possible and this is greatly facilitated in the new schools, where provision has been made for the doctor's accommodation. A total of 62,134 examinations were made during the year, compared with 51,230 in 1935. The difference is largely explained by the fact that a more adequate staff has been able to make up the greater part of accumulated arrears.

Findings of Medical Inspection.—At the inspection of routine ages, 4,117 children were found to have 4,784 defects requiring treatment. 7,919 other defects reported for observation only were also recorded. At the inspections of "Specials," 5,820 defects requiring treatment and 384 for observation only were found. There was thus one defect sufficiently serious to require treatment found in approximately every six children examined. These defects do not include sub-normal nutrition, uncleanliness or dental diseases. They are classified in Table 10 at the end of this report.

Uncleanliness.—Table 12 gives particulars relating to verminous conditions in the schools ; further details will be found in table 1, which gives a summary of the work carried out by nurses. The graph on page 9 shows that there is a slowing down in the eradication of this objectionable condition. It is well to remember however that at the beginning of school nursing, sometimes as many as seventy-five per cent of the girls in a school would be found to be infected. Thus there has been a profound change in the attitude of the people in this respect and this must have repercussions throughout their daily lives.

The introduction of tar oil lotion is to be thanked for much of this success. Fine steel combs also render a mother's task more easy. They are provided on loan by the nurses, without many losses, or are sold at two shillings each.



Graph showing the number of individual children found unclean, expressed as a percentage of the School Roll.

Nutrition.—During 1935, the Board of Education adopted a new classification for nutritional statistics, viz., A—Excellent, B—Normal, C—Slightly sub-normal and D—Bad, and instructed Local Education Authorities accordingly. Complete statistics for the Committee's area based on this new classification are now available, as set out in Table **10**. It will be seen that the figures are as follows :—

A	16·0%
B	72·9%
C	10·4%
D	0·7%

In the Country as a whole, the corresponding figures for the year 1935 were :—

A	14·6%
B	74·1%
C	10·6%
D	0·7%

In Kent there is a rather bigger percentage of eight year old children with slightly sub-normal nutrition than at any other age examined as a routine group. The same applies to the figures for England and Wales. All these percentages are practically the same as the corresponding figures for last year. The slight differences which exist cannot be regarded as significant and it may be taken that Kentish children, so far as nutrition is concerned, can be regarded as a fair sample of the Country as a whole.

This conception of " nutrition " is so vague, its gradation so empirical and its assessment based on such imponderables that it would be surprising to find the statistics relating thereto as having any comparable value between one area and another. Some suspicion may therefore arise that the close agreement actually found may be the inevitable consequence of their derivation. However this may be, there can be little doubt that these nutrition statistics will be of great value in comparing one year with another in the case of the same area or a number of areas, in time to come.

Table 1.—*Summary of work carried out by Nurses during the year* 1936.
(*See also Table* 12, *Group VI.*)

Year. (1)	School Roll of Area on 31st December. (2)	No. of Visits to Schools. (3)	No. of Examinations of Girls. (4)	% of Girls Verminous.* (5)	No. of Examinations of Boys. (6)	% of Boys Verminous.* (7)	No. of Re-examinations of Girls. (8)	% of Girls Verminous.* (9)	No. of Re-examinations of Boys. (10)	% of Boys Verminous.* (11)	% of Girls Excluded. (12)	% of Boys Excluded. (13)	% Exclusions to School Roll. (14)	No. of other visits to Schools. (15)	Attendances at Clinics. (16)	% Home visits to School Roll. (17)	% of other Exclusions to School Roll. (18)
1936	81,250	2,559	91,375	3·9	81,996	0·9	7,685	42·4	2,815	16·8	0·8	0·2	1·2	1,465	1,771	25·8	1·6
1935	80,069	2,786	98,106	4·4	93,973	1·1	8,713	39·1	2,934	23·2	0·7	0·2	1·2	1,643	1,370	24·3	1·6
1934	82,090	2,810	100,317	3·8	70,602	1·0	13,461	21·6	7,574	6·2	0·5	0·2	0·9	1,397	1,338	25·9	1·6
1933	84,234	2,600	98,079	3·9	90,209	0·9	8,537	35·7	3,782	11·5	0·6	0·2	0·9	1,364	1,484	22·1	1·4

* " Verminous " children include all degrees of uncleanliness, from " a few nits " to " many live vermin."

Infectious Diseases.—It was necessary to close one school during **1936**, on account of scarlet fever. The period of closure was two weeks.

The following is a statement of the action taken under the regulations, showing the number of certificates issued in respect of attendances of less than **60** per cent, on account of infectious disease :

Disease Prevalent.	Period Covered by Certificate.						Total.
	One Week.	Two Weeks.	Three Weeks.	Four Weeks.	Five Weeks.	Six Weeks & over.	
Measles	22	21	15	15	5	1	79
Measles, Coughs and Colds ...	2	—	—	—	—	—	2
Measles and Mumps	4	1	1	—	1	—	7
Measles and Scarlet Fever ...	1	1	—	—	—	—	2
Measles Scarlet Fever and Whooping Cough ...	1	—	—	—	—	—	1
Measles, Whooping Cough and Colds	1	—	1	—	—	—	2
Chicken Pox	5	3	1	—	1	—	10
Chicken Pox and Measles ...	1	—	—	—	1	—	2
Chicken Pox, Measles and Mumps	—	—	1	—	—	—	1
Chicken Pox, Mumps and Coughs	—	1	—	—	—	—	1
Chicken Pox, Whooping Cough and Influenza	1	—	—	—	—	—	1
Chicken Pox, Colds and Coughs	1	—	—	—	—	—	1
Colds and Coughs	4	1	—	—	—	—	5
Influenza	3	—	—	—	—	—	3
Influenza and Colds	3	—	—	—	—	—	3
Influenza and Whooping Cough	1	—	—	—	—	—	1
Mumps	3	1	2	—	1	—	7
Scarlet Fever	1	—	—	—	—	—	1
Whooping Cough	8	2	3	3	1	1	18
Whooping Cough and Measles	5	—	2	—	—	—	7
Whooping Cough and Chicken Pox	1	—	—	—	—	—	1
Whooping Cough and Colds ...	1	—	—	—	—	—	1
Totals	69	31	26	18	10	2	156

The number of these certificates granted rose from **78** in **1935**, to **156** in the year under review.

Measles was the disease having the greatest influence on attendance, as was the case in **1935**. One hundred and three of the certificates were required for this disease, singly or in combination with other diseases.

Next in order were whooping cough, chicken pox, mumps and " colds and coughs."

Following-up.—After a medical inspection, notifications are sent to the parents of all children with defects requiring treatment. The Central Office is also informed and a record card (Form **32** M.I.) is made out for each child. These cards are sent to the School Nurse of the area concerned. The nurse then visits the parents, makes any explanation necessary, and supplies information regarding facilities for obtaining treatment. Her action and its results are entered on the record card, so that, at the following medical inspection, the school doctor, who will be in receipt of these cards will know precisely what has taken place since the first inspection. The doctor then makes any further recommendation which, in his opinion, may be necessary, if treatment has not been obtained. If and when at least two recommendations have been ignored by the parent, a letter is written in certain cases direct to such parent, pointing out the necessity for treatment. If still no action is taken, the National Society for the Prevention of Cruelty to Children is asked to assist.

The area of the Committee is divided into 41 nursing districts, and each nurse attends to the school work of her own area (and also to tuberculosis work and to health visiting in most of the areas). Notwithstanding increases in the staff during the last few years, some of the districts are still too big, more especially in N.W. Kent and it will be necessary to appoint more nurses in the New Year if the work is to be done effectively.

In addition to the whole-time nurses there are also many district nurses for the most part attached to the Kent County Nursing Association, who carry out school work for the Committee.

MEDICAL TREATMENT.

Buildings.—Two new clinics were completed by the end of the Year, though not ready for occupation, one at Welling (Little Danson) and the other at Crayford (May Place). Also, a house was purchased at Chislehurst to serve this district and Mottingham for M.C.W. purposes as well as for school clinic work. The necessary alterations and additions have not yet been begun.

Minor Ailments.—Impetigo, ringworm, small wounds etc. are treated by the school nurses at the clinics, under the supervision of the medical officer in charge. Most of the clinics are open every morning for half-an-hour or an hour for the purpose of treatment of minor ailments, though the doctor only attends once a week—in some cases only once a fortnight. Where no clinic is available, treatment is carried out at the children's homes—if necessary, under the supervision of local general practitioners, as in the case of ear discharge and some other conditions.

The following is a summary of nurses' case cards for the year 1936 :

TABLE 2.

Defect.	1936.
Ringworm of Scalp	19
Ringworm of Skin	48
Impetigo	533
Scabies	148
Sores	100
Eye Conditions (Under doctor's supervision)	165
Ear Conditions ,, ,, ,, ...	44
Other Defects	131
Total	1188

Chronic Tonsillitis and Adenoids.—It was stated last year that the Throat Clinic at Sheerness had to be closed, and that alternative arrangements were being made. These are now complete, and the Island cases requiring operative treatment are being dealt with at the County Hospital, Minster. There has been a large rise in the total number of operations for tonsils and adenoids during the year.

TABLE 3.

The following table gives the number of cases treated under the Committee's arrangements :—

Hospital.	Tonsils and Adenoids. No. of Cases.
Ashford	12
Bexley Cottage	208
Bromley Cottage	1
Chislehurst, Orpington and Cray Valley	155
Crayford, Russell Stoneham	26
Dartford, County	73
Dartford, Livingstone	89
Deal, Victoria	19
Dover, Royal Victoria	9
Faversham Cottage	6
Folkestone, Royal Victoria	94
Gravesend General	12
Herne Bay Cottage	13
Kent and Canterbury	108
Kent County Ophthalmic	176
Kent and Sussex, Tunbridge Wells	22
Margate General	8
Minster (Sheppey)	139
Rye Memorial	2
Sevenoaks and Holmsdale	—
Tonbridge Cottage	23
Whitstable and Tankerton Cottage	18
Total	1213
Total for 1935	716
Total for 1934	762
Total for 1933	727

Tuberculosis.—The supervision and treatment of tuberculous children is undertaken by the family medical attendant or by the county tuberculosis officers.

The following table shows the attendances at the county dispensaries during the year :—

Table 4.—*Showing school children from the area of the Kent Education Committee who were seen at the County Tuberculosis Dispensaries during* 1936

Age.	Tuberculosis of Lungs. (Definite.) (1)		Tuberculosis of Lungs. (Suspected.) (2)		Treated as Pre-Tuberculous, etc., but not suspected of Tub. Lungs. (3)		Glands. (4)		Spine. (5)		Hip. (6)		Other Bones and Joints. (7)		Skin. (8)		Other Forms of Tuberculosis. (9)		Non-Tuberculous Diseases. (10)		No Disease. (11)		Total. (12)	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
5	0	1	0	3	13	11	6	3	0	6	1	2	0	0	0	0	1	2	8	3	28	26	57	57
6	1	1	2	2	8	9	8	5	0	0	0	1	0	0	0	0	1	3	7	8	23	17	50	46
7	7	4	5	3	2	2	8	6	6	15	2	0	4	1	0	0	2	1	13	6	26	23	75	61
8	7	4	7	3	7	3	6	8	2	1	0	2	1	2	0	1	0	3	7	4	22	14	59	45
9	1	1	4	0	8	11	14	8	1	2	3	0	0	0	1	0	3	3	11	5	27	27	73	57
10	2	2	4	1	10	12	5	8	2	0	1	1	2	1	0	1	6	3	6	10	20	26	58	65
11	4	5	5	5	4	13	13	2	1	0	2	1	0	1	0	1	4	2	5	7	21	20	59	57
12	4	2	2	3	2	8	13	9	0	3	3	2	1	4	1	0	4	1	10	6	18	21	58	59
13	4	2	3	1	3	3	4	7	3	1	1	0	1	1	1	1	5	1	1	6	21	20	47	43
14	1	3	3	5	3	2	5	1	0	1	0	2	0	0	0	0	2	1	5	5	6	10	25	30
Totals	31	25	35	26	60	74	82	57	15	29	13	11	9	10	3	4	28	20	73	60	212	204	561	520
Totals in 1935	30	25	16	25	75	85	63	51	8	9	11	8	13	9	2	3	31	16	48	54	194	212	491	497

Skin Diseases.—Cases of impetigo and scabies are considered under " Minor Ailments." Ringworm is also dealt with as a minor ailment, unless X-ray treatment can be adopted. X-ray treatment is carried out at Guys Hospital, London and at the Kent and Canterbury Hospital and nine cases were thus dealt with during the year. At one time the figure was well over fifty. There has been no case of permanent injury arising from this method of treatment for some years now.

Vision and Eye Disease.—There have been no changes in the arrangements for the treatment of defective eyesight or sore eyes. The County is well provided with Ophthalmic clinics (except in the Eastry area) and most of the cases are treated by the Committee's Oculist. As stated earlier in the report, Mr. Ebbage has been appointed to take over the larger part of this work and to develop the usefulness of the clinics in new directions, such as the supervision of cases of high myopia after school life. He will also be available for the examination of persons under the Blind Persons Act, 1920 on behalf of the County Council.

The table below shows the number of children who were seen at the Ophthalmic clinics during the year.

Table 5.—Showing cases of defective vision examined by the school oculist.

	Ashford.	Aylesham.	Broadstairs.	Dartford.	Hythe.	Maidstone.	Northfleet.	St. Mary Cray.	Sevenoaks.	Sheerness.	Sittingbourne.	Sandwich.	Tonbridge.	Whitstable.	Total.
New cases	86	7	1	566	25	83	93	111	72	100	54	60	122	30	1,410
Re-examinations ...	94	32	21	652	10	116	124	99	79	133	84	73	210	57	1,784
Glasses prescribed ...	89	12	4	743	20	105	90	94	59	95	46	65	124	27	1,573
Glasses obtained* ...	104	21	8	749	25	109	115	104	83	106	100	72	187	38	1,821

* Includes spectacles prescribed in previous years, but obtained during 1936.

Ear Diseases and Hearing.—An important development has taken place in the treatment of ear disease by the establishment of special aural clinics for school children and children under school age. On June 1st, 1936 Mr. T. P. Gill, F.R.C.S., took up his duties as the Committee's Aural Surgeon. He visits the more important clinics in rotation and devotes half of his time to the work. An aural nurse, Miss F. Swanson, (late of the Kent County Ophthalmic and Aural Hospital) was appointed to begin work at the same time. She attends at the aural clinics with the Surgeon, and at other times, devoting her whole time to the work.

The attention of practitioners throughout the administrative area has been drawn to these new facilities for treatment, with an invitation to make use of them when this seems useful. All district medical officers in charge of infectious diseases hospitals have been asked to co-operate and notify cases of running ears etc. developing as complications of infectious disease.

Mr. Gill has reported as follows :—

Clinics have so far been held at the following centres :—Dartford, Northfleet, Sittingbourne, Sheerness, Ashford, Tonbridge, Maidstone, Snodland, Aylesham, Whitstable and St. Mary Cray. At the first six of these the Surgeon attends every two weeks and at other five once a month ; so far, on account of accommodation difficulties, only one clinic has been held at St. Mary Cray, but it is hoped that improved facilities will soon be available there. Attendances at the clinics were at first small and during the late part of the summer were affected by the holiday and fruit-picking seasons, but improved as the clinics became better known ; children from the poorer districts attend less regularly, although no charge is made for treatment, and where necessary, assistance is given by the Committee toward the travelling expenses of the parent and child.

Cases are referred to the Aurist by the assistant school medical officers, private practitioners, nurses or teachers, and some present themselves independently. The Aurist's visit extends over two hours, and he is assisted by the aural nurse. All new cases are submitted to as full a clinical examination of the Ear, Nose and Throat as is possible, depending on the age of the child, and an attempt made to estimate the hearing capacity; for this last, most reliance is placed on the forced whisper test at six metres. After examination, any necessary treatment is ordered and begun there and then if required, and any cases seen at a previous session and undergoing treatment are also attended to. No operative work is carried out except occasional minor procedures under local anæsthesia. Besides attending the Aurist at his visit, the aural nurse carries out all the intermediate treatments and also attends at schools or patients' homes when such cases fall conveniently within her itinerary. By a suitable grouping of the clinics it has been possible to treat a large number of cases weekly, and in some places, as at Dartford, where the number of the cases warrant it, treatment has been given twice weekly. Most of the cases on treatment are discharging ears and the importance of frequent attention cannot be overstressed, for it is a disease of childhood which is very amenable to treatment if such treatment is carried out continuously by skilled hands and not left to the infrequent attentions of the child's parent who cannot generally be expected to know or understand the technical details necessary. These cases are usually painless and the running ear among certain classes is not regarded as unnatural, so that the importance of cure and the prevention of later deafness or complications is not always appreciated. From the tables it will be seen that about 50% of the discharging ears have been cured, and although this seems a small proportion many of them only came under treatment towards the end of the year and a number renewed their attendances which for some reason had been interrupted during the summer, the benefits of their earlier treatment having meanwhile been lost. In the great majority of the cases the discharge had persisted for several years and some had never received any form of treatment whatsoever. Every effort is made to maintain the continuity of treatment once it is begun, and all who have temporarily lapsed are given new appointments to attend, with the result that all who have been absent on account of illness or any other reason can resume treatment with the least possible delay.

Good results have been obtained in the treatment of the hard of hearing, and in those who have not been relieved steps have mostly been taken towards their transfer to schools for the deaf or partially deaf.

Since it is recognised that a vast proportion of middle ear disease of later life commences in early childhood, it is important that particular attention should be paid to school entrants or even to those of pre-school age ; it would be valuable, too, if all children who are known to have had a recent infectious disease were submitted to inspection at the earliest opportunity in order that any aural condition or recurrence may not be neglected. To obtain control of deafness or otorhoea in the early years will make all the difference to a child's educational progress.

CASES OF OTITIS MEDIA.

New Cases	209
Total Attendances	846
Cases Cured	79
Cases referred for operation	4
Still under treatment	57
No treatment required	52
Lapsed	17

HARD OF HEARING CASES.

New Cases	133
Total Attendances	468
Cases Cured	45
Cases partially relieved	40
Cases unrelieved	10
No treatment required	29
Lapsed	8

CASES OF EXTERNAL OTITIS.

New Cases	17
Total Attendances	32
Cured	4
Still under treatment	4
No treatment required	9

NASAL CASES.

New Cases	51
Total Attendances	93
Cases Cured	16
Still under treatment	17
No treatment required	16
Lapsed	2

TONSIL AND ADENOID CASES.

Total Examinations	157
Cases requiring treatment	121
No treatment required	26

Of the above number, 18 children were under school age.

Total Number of Attendances	1,596

Crippling Defects.—No changes have taken place in the County Orthopædic scheme. The following tables give some idea of the nature and amount of work done for school children in the area.

Table 6.—*Classification of defects of* 478 *children chargeable to Kent M. & C.W. and Kent Education Committee, who attended for the first time during* 1936.

	Kent M. & C.W.		K.E.C.	
Defect.	Male.	Female.	Male.	Female.
1. Congenital deformities :				
Clubfoot	5	5	4	3
Congenital dislocation of hip	—	1	3	—
Congenital malformations	5	3	7	16
Congenital paralysis	4	2	12	13
2. Deformities due to rickets	23	9	26	24
3. Poliomyelitis and resulting deformities ...	1	—	5	2
4. Other acquired deformities :				
Flatfoot	—	2	39	45
Curvature of spine (excluding Tuberculosis)	—	3	45	88
Deformities or limitation of movement due to fracture	4	1	19	6
Amputation for injury or disease	—	—	2	1
Disabilities arising from osteitis and periostitis	1	—	3	4
Arthritis	—	—	2	—
Deformities due to nerve injury and disease	—	1	3	3
Other deformities	3	1	3	8
5. No information	3	—	2	1
6. No defect discovered	1	2	5	4
Totals	50	30	180	218

Dental Defects.—The appointment of a Senior Dental Surgeon and of another assistant dental surgeon has already been mentioned. Mr. Saunders now submits below his observations on the service as a whole, and then follow reports for each of the areas, where such reports contain statistical information relating to those particular areas. The general observations from the remaining reports are incorporated in the Senior Dental Surgeon's introduction.

A review of the School Dental Service for the past year 1936, reveals much of interest, and I have pleasure in submitting statistics pertaining to the whole of the administrative area, which are computed from a summary of the annual report of each Dental Surgeon.

The characteristics of an ideal dental service can be summarized as follows :

(*a*) Careful planning of an Officer's area.
(*b*) Co-operation of Head-Teachers, and Parents.
(*c*) Consistency of output (as far as is practicable).

The last factor depends upon well equipped surgeries, suitable premises, and upon the ability of the Dental Surgeon, in performing the necessary treatment for each individual patient.

An output of high yearly attendances is of no importance in itself, for one Officer may complete the whole of the necessary treatment for a patient at one attendance, whereas, another would require two or more attendances for the same amount of treatment.

I am of the opinion that the most accurate method of assessing individual annual output, should be based upon the actual amount of surgical and conservative treatment done per-attendance, together with the average number of patients completely treated daily (but one must remember that statistical evaluations do not determine the quality of output). Personally, I consider, consistency of individual annual output (coupled with an increase of staff last year) should be fairly constant for the current year.

Acceptances for treatment as a result of inspection, vary in different parts of the County, which may partially be attributed to insufficient travelling facilities, financial circumstances, or reluctance to treatment by either child or parent.

During the year 59,169 children were inspected. Of this number 64·06 per cent required treatment, and of this 64·06 per cent, 49·33 per cent received the necessary treatment at the Committees' School Clinics.

The combined average daily attendances and the number of cases completely treated daily, together with the surgical and conservative treatment per-attendance for the whole of the administrative area is appended (excluding such items of treatment as Scalings, Dressings and Orthodontic treatment).

Average Daily Attendances	*Average No. of Children completely Treated Daily*	*Average No. of Extractions PER ATTENDANCE*	*Average No. of Fillings PER ATTENDANCE*
15·10	8·62	1·18	·67

Mr. F. Saunders :

Dental " Inspections " and " treatment " have been carried out in ten centres in my area during the year 1936.

PERMANENT CENTRES.—Tonbridge, Edenbridge, Southborough.
TEMPORARY CENTRES.—Chiddingstone Causeway, Cranbrook, Brenchley, Lamberhurst, Langton, Pembury, Paddock Wood.

The children in forty-one schools (including departments) have been inspected, compared with forty-six for the previous year.

55·03 per cent of the children referred for treatment accepted same.

23 children, of the total of new individual children commencing treatment, were carried forward into 1937 for completion of treatment.

397 special applications for treatment were received without inspection.

175 visits were made in respect of children whose parents failed to sign form 57. M.I. after inspection, and 132 forms 57. M.I. were signed as a result of these visits.

5 miscellaneous visits were made during the year.

1,045 is the total number of visits made during the year.

127 half days were devoted to visiting and propaganda work by my dental attendant, under my instructions.

I greatly appreciate the efforts of my Dental Attendant, Head Teachers, and Nurses, for their co-operation during the year.

Miss A. Smiley :

The full time Dental Clinic at Dartford has fully justified its existence, for during the year 1936, over 3,000 attendances have been made at the Clinic by 1,654 children.

It has not been possible to do Dental Inspections at all the schools in this area during the year. Out of the 36 schools only 29 have been inspected. However now that the areas Nos. 1 and 9 are being re-organised, there will probably be 8 schools transferred from the Dartford Clinic to the new Clinic at Barnehurst. This should make it possible for the schools in the Dartford area to have Dental inspections at least once a year, the maximum period that should elapse between inspections. It is gratifying to note that many parents realize that in order to keep their children dentally fit, visits to the Clinic at six monthly intervals are desirable and there have been numerous requests from parents for such appointments.

Mr. L. F. Hayes :

The clinics have again been well attended except for the periods before and after holidays.

Clinics have been held at NORTHFLEET as the permanent centre and at fifteen temporary centres.

The clinic held at the Chatham Day Technical School, the first Secondary School in the County to come into the scheme, was a great success. The 100% acceptance was made possible by the co-operation of the Head-mistress and staff. The following is an analysis of the work done.

Sessions.	Attendances.	Fillings.	Complete Treatments.	Extractions.
79	754	864	218	60

Nine regulation cases were treated by extraction. Should the high percentage of acceptances be repeated next year, and the effort of the school staff maintained, the amount of time spent on those children treated this year, should be reduced to approximately a third.

The number of children treated in the whole area was 2,254 of which 2,022 completed the treatment. The difference represents mostly children who had an offending tooth removed and afterwards refused conservative treatment.

The number requiring treatment as the result of inspection is approximately 70%.

The average acceptance per school works out at 30%. Some of the reasons for the remainder not accepting are :—

(I). Mother cannot see anything wrong.

(II). He or she does not complain of dental trouble.

(III). In the case of 5 year olds—mother cannot leave the home, for various reasons.

(IV). Cannot afford the shilling treatment fee, and having a certain amount of pride will not ask for free treatment.

(V). This, probably the main reason, the child does not take the Form 57. M.I. home.

The average daily attendance was 16. The average daily completed treatment was 9·3.

I have been asked to give the following extract from an article of mine published in the "British Dental Journal," 1st November, 1936, written after visiting school clinics in Germany as far apart as the Rhinish Towns to Hanover and Berlin.

" . . . . . in Germany where, since the advent of Hitler and National Socialism everything possible is being done for the youth of the country. The clinics which are in existence are run by part time officers and are as far as one could judge quite ten to fifteen years behind us in organisation and funds—which means environment of clinics generally and staff. Their best clinic is situated in Berlin in one of the poor residential quarters and attached to a large school of a thousand children. The acceptance of dental treatment, like everything in Germany, is voluntary—with a veiled form of conscription, but should treatment not be sought, the father is refused the two weeks summer holiday on full pay—neither is he allowed to participate in the cheap travel facilities organised by the state. This is concisely put —' If you are not interested in the future of the Fatherland, the Fatherland is not interested in you.' Whether this form of voluntary acceptance commends itself to the powers that be in this country, remains to be seen—but there is something in it which flavours of family justice—rather rough perhaps. If a child fails to observe the essentials of family conduct, it does not deserve the sweets of its labours.

When the means of giving all children in this country dental treatment have been adequately developed, something will have to be done to make parents use the services provided, and only by thus making treatment regular will it be possible to have all children leaving school fit."

Mr. P. D. Gausden :

I have pleasure in submitting my Annual Report for 1936. Treatment has been carried out at permanent Clinics in Sheerness, Sittingbourne and Faversham, and at five temporary Centres, some of which were so situated as to enable the children of two or more Schools in the vicinity to be treated there.

1,512 individual children were treated who made 2,427 attendances. A total of 765 fillings were inserted, of which 547 were for permanent teeth.

There have been a very large number of children accepting treatment after having refused earlier in their school life, and in consequence 709 permanent extractions have been necessary, largely owing to these teeth being absolutely unsaveable when eventually treated, and which, had treatment been accepted earlier, could have been filled. A certain number of these permanent extractions were also necessary for regulation purposes.

3,112 temporary extractions were carried out. 1,493 local anæsthetics and 246 general were administered; of the latter the majority were at the Sheerness Clinic for children in the Sheerness and Sittingbourne area, while the others were for those who attended the Gas Clinic at Faversham on mornings when M. and C.W. cases were treated.

302 sessions were given to School Clinic treatment. As a result of inspections, of 3,423 children who were in the " A " group, 2,061 were found to require treatment, while of 2,645 who had already had treatment at the Clinics, only 974 required further attention.

Generally I find that while I am receiving an increasing co-operation from the Head Teachers, the propaganda of the children themselves, to which I referred in my previous report, is a very important factor and many of the visits are made to convince parents of the necessity for treatment to children who are already anxious to have this carried out.

There is a very welcome and noticeable decrease in the number of refusals of fillings ; I refer to those cases where the form of acceptance of treatment has been signed and where the permanence of a properly inserted filling has in the past been disputed, on the evidence of a parent or friend who has suffered from unskilled treatment in the past.

Mr. A. MacDougall :

Since taking over this area on 1st October of the current year, treatment has been carried out at one centre only, the clinic at Ashford.

During 1937 however, it is proposed to commence temporary centres at Charing and Headcorn, in order to provide treatment for those who live in outlying districts and who find the transport to Ashford a financial handicap. Tenterden has again been included in this area, and will constitute a third temporary centre.

Since 1st October, inspections have been made in 16 schools, including departments.

Approximately 35% of all children referred for treatment have accepted.

Of the permanent series, 21% of all teeth treated were extracted and the remaining 79% were filled.

Of the deciduous series, 70% were extracted, 23% were filled, and the remaining 7% were treated by dressings.

The attendances have been satisfactory until the middle of December when they dropped considerably as a result of colds and chickenpox.

Mr. F. A. Markham :

Four hundred and twelve sessions have been devoted to treatment this year, mainly in the two clinics at St. Mary Cray and Sidcup. The latter area continues to expand, demanding increased attention.

The temporary clinics which were again held at Chislehurst, Swanley, Biggin Hill and Knockholt were well attended.

The children from Downe School find it very difficult to attend any centre since the Keston Clinic was taken over by Bromley, so they were treated in the school itself. There was a marked increase in the acceptances. The total attendance at the clinics was 3,334 giving a daily average of 16. Approximately 7 of these were completely treated.

Twenty-one sessions were devoted to inspections in the schools and it was found that 73% of the first time inspections were referred for treatment, while 73%

of the re-inspected were referred. As in previous years several regulation appliances were fitted and those undergoing treatment showed satisfactory results.

My Attendant's work, both in and outside the clinics, has shown itself in the smooth running and success of the year.

Mr. H. Cantor :

During 1936, dental treatment has been carried out at Broadstairs, Herne Bay, Whitstable and Sandwich, all these being permanent clinics. Attendances have been well maintained, although Sandwich is still well behind the figures shewn by the other three clinics.

In previous reports I have commented on various aspects of the clinic work and occasionally have mentioned queries asked by parents whose presence in the operating room I have never discouraged. A question which does recur from time to time is " What sort of food is of most value to avoid decay of the teeth so early in a child's life ? " Of course the preservation of the teeth is, to my mind, really settled for all of us (*a*) in pre-natal development and (*b*) in infancy. The obvious reply is one pointing out that, in addition to oral hygiene, articles of diet containing vitamins A, D and C are very necessary for proper dental growth. In this respect one will watch with interest the degree of improvement which one hopes will result as a sequel to the intake of extra milk at school. To turn to the year's work, the average daily attendance covering all clinics is exactly 18. 3,395 routine cases were inspected and 2,183 (64%) were referred for treatment. Of the 4,195 re-inspections 1,613 (38%) were found to require further attention. 2,414 individual children were treated (making 3,200 attendances) and of these 2,282 completed their treatment. Dealing with conservative treatment, a total of 1,778 fillings were inserted, being 1,586 permanent fillings and 192 temporary fillings. Permanent teeth extracted number 192 and deciduous extractions were 2,279.

DENTAL TREATMENT AFTER SCHOOL LIFE.

To form an opinion on the prospective value of the School dental Service to the Community, some estimate must be made of the permanence of the work done and of the extent to which treatment is continued after school life. For this reason the dental staff were invited to carry out an investigation of the dental condition of as many children as possible who had left school from two to five years ago and were passed as fit on leaving.

The enquiry has been conducted on the following lines :—

Letters explaining the objects of the investigation were sent to some 1,500 past pupils inviting them to attend at local clinics at stated times or alternatively at times to be given by the past pupils, or failing ability to attend at all, to give certain particulars set out on a stencilled form. The enquiry was supplemented by visits of the dental attendants to the old pupils' homes, in an endeavour to secure sufficient information on which to base conclusions having a reasonable degree of reliability.

As a consequence, 673 reports were received, 342 being the results of actual examinations at the clinics. These reports are summarised in the table below :—

Cases investigated	673
Treated since leaving School	196 or 29%
*By extractions	143
*By fillings	40 or 5·9%
Otherwise or unknown	13
Not treated since leaving School	477 or 71%
Reasons given.	
" Unnecessary "	206
On a/c of cost	133
Other	138

* All through private practitioners.

Of the 342 cases reported upon as a result of actual examination by the dentists, the returns of 185 from the Tonbridge and Sittingbourne areas are perhaps best adapted for giving further statistical information. These returns are analysed in the following table :—

Cases	185.
Average period since leaving school	2·5 years.
Fillings present on leaving	536 average 2·9.
Treated since leaving school	48.
By extractions	38 20%.
By fillings	10 5·4%.
Fillings present on re-examination.	505 5·8% lost.
No. of carious teeth	279 average 2·5 each.
Not treated since leaving school.	137 74%.
Reasons for no treatment.	
Unnecessary (in fact)	74 40%.
Cost	36 19%.
Other (ignorance, indifference)	27 15%.

The children who got dental treatment at school were a selected class, and it seems likely that those among this class who elected to accept the invitation to be re-examined after school life are again ‘ selected.’ It follows that the results obtained from this investigation must be regarded as definitely more favourable than the real truth, i.e. when it is stated that three quarters of all the ex-pupils get no treatment at all then the real truth is that more than 75% get no treatment.

Although a quarter of the cases have received some form of dental treatment, most of this has consisted of extractions, and extractions have been demanded only because of pain.

Conservative treatment has been obtained in about 5% of cases, judging this by the fillings done and a considerable proportion of this has resulted from the requirements of the Services and in one or two cases of private employers.

This is equivalent to a little over one per cent of the school population, and it is to be feared that this figure of one per cent shows the extent, on the most optimistic estimate, to which recourse is made to dentists by young persons after leaving elementary schools for the purpose of maintaining their teeth in good condition. It could hardly be worse.

Fortunately there are some redeeming features. It is a surprising thing that 40% of the cases should have no need of treatment, their mouths being dentally fit, though in an appreciable number it is noted by the dentists that the teeth are neglected in the matter of cleanliness. In the prosperous residential coastal areas of N.E. Kent, the returns are relatively favourable and there seems no doubt that a big factor militating against obtaining treatment is that of cost. Among the cases showing caries in the second table, cost is given as the cause in one third, and ignorance or indifference in about one fifth. These causal factors actually work together and manifest themselves in the unwillingness of the adolescent to sacrifice some immediate gratification for the sake of future benefits only vaguely apprehended. It is not surprising.

Another encouraging feature is that, of 536 fillings (including 10 inserted after School life), 505 remain in sound condition, after an average period of 2½ years. Considering all the circumstances, this must be regarded as satisfactory. This with the fact that in so many cases, dental caries has progressed no further shows that the work of the dental service is by no means wasted. Where caries has progressed it has done so at an average rate of one additional tooth affected each year per individual (no account being taken of the number of teeth extracted).

Whilst it forms no part of the purpose of this survey to justify the existence of the School Dental Service from its immediate results, attention may be directed to the fact that the ex-pupils examined had on an average three fillings each. It may reasonably be assumed that in the absence of treatment at school their mouths would have been in a more or less serious condition. In the words of one of your dental surgeons, “ the value of dental treatment during the school period is probably only appreciated fully by those who examine children in areas hitherto untouched by a dental scheme where the most appalling conditions of sepsis and pain are found and after some years note the change in cleaned mouths with increased self respect and health." A word on costs may also be added. The services of a dental surgeon, his attendant, travelling expenses and subsistence allowances, including inspections at the schools and "following-up" cost approximately 10/- per completed case, not counting overhead charges for buildings and equipment, or the cost of materials.

To revert to the survey, it is clear that practically no conservative work is being done in the years immediately following school life and only isolated extractions to secure freedom from pain. There is naturally some reticence and perhaps difficulty on the part of parents in attributing this neglect to the real cause, but there can be little doubt that expense is a very serious obstacle. In this case only limited improvement can be expected from more vigorous propaganda from educational efforts in the schools, though of course, the most should be made of these endeavours. High hopes are entertained that the incidence of dental caries will be radically reduced in the future by the national adoption of a diet in accordance with the findings of recent research, but this hardly affects the immediate problem. Some improvement would result from the closure of the gap between school leaving age and the age of eligibility for dental benefits under the National Health Insurance Scheme. It is suggested too, that approved Societies, or panels of Dentists, should initiate schemes whereby any person after leaving school and up to some prescribed age and who could produce a certificate of dental fitness on joining could receive dental attention in return for a small annual subscription. A scheme of this kind is in being in the Brentford and Chiswick District of London, but it cannot be regarded as entirely successful. Of the school leavers in 1935 only 10% accepted the offer and it is noted that of all those who joined since 1932 when the scheme started no fewer than a third have been disqualified from membership through failure to present themselves for half yearly inspection.

However, if some such schemes were widely adopted it should be to the interest of trade unions in collaboration with employers to insist on advantage being taken of them as a condition of their own membership. Indeed some large business firms provide dental treatment for their employees, so it is to be assumed that they find this provision of economic value.

I suggest that associations of employers and trade unions be approached in order to ascertain their views. Even if no immediate steps were found practicable, an interest might be aroused and the way paved for a future advance.

Speech Defects.

A clinic for the treatment of speech defects was opened on the 14th September at Dartford, under the auspices of the West End Hospital for Nervous Diseases, Misses Colls and Pick being the Therapists and Dr. Stableforth, whose report to February 20th, 1937 is given below, being the Committee's medical representative or liaison officer. Dr. Stableforth is satisfied that valuable work is being done.

A speech defect, unless of quite minor degree, is a serious handicap not merely because speech is less intelligible but because it is accompanied by psychological changes which may prejudice a child's whole future. Time and money devoted to the treatment of properly selected cases is therefore well worth while.

Dr. Stableforth lays stress on the importance of co-operation with the teaching staff. It is not always possible for teachers to devote time to going through special exercises with individual children, but when this can be done the final result is better and is reached in less time.

Report on the Work at Dartford Speech Clinic,

by Dr. G. Stableforth.

The inauguration of actual treatment at this Clinic was preceded by school inspections for finding the patients.

In the beginning Dartford schools, Slade Green and Northend were listed for the Therapists to visit and see any children who were presented to them as cases of possible speech defects, the selection being made by the teachers. A list of over a hundred names was compiled but several names have been deleted by us, as being not true speech *defects* but cases of dialectic errors, and of course the object of the clinic is the treatment of speech defects only.

Since making the lists, several names have been added from the schools in Bexleyheath, Crayford and Mayplace, sent by the teachers to us ; these schools have not been visited by the Therapists as there was sufficient work from the existing waiting list.

I have examined the children prior to treatment and most of them on discharge. At first I went to the schools, but since then I have made arrangements with the Therapists for new patients to see me on arranged dates at the clinic, so that I may have a better chance of interviewing the parents and so work in closer co-operation with Miss Pick and Miss Colls ; also on discharge similar arrangements are being made. During the first few weeks all treatments of patients were individual, and then, after discussion with Dr. Fox, the following scheme was evolved :—one Therapist dealt with new cases while the other took classes of children who had previously had individual treatment. It is really essential for the first treatments to be private, and, then according to progress made, the children are drafted to the classes ; the class cases have one private treatment and one class treatment per week. On discharge the patients are asked to attend at periods, varying from one to two months interval for observation only.

The following is a summary of the treatment carried out or in course of being carried out :—

Lalling cases	18
Stammerers	19
Cleft palate cases	6
Cases of defective auditory perception	1
Total	44

Number of finished cases	16
,, discharged on account of bad attendance	5
Number referred to other clinics	3

The three cases referred to other clinics were :—

Two of stammers, requiring psychological treatment and sent to the West End Hospital.

One stammer case of low intelligence discharged until further investigation of mental capabilities can be made. She is under my observation.

I should like to mention some few cases of special interest, such as the following :—

NOTES ON CASES.

Complaint.

(a). *Stammer.*—A very bad case. This child was mentioned as being referred to the West End Hospital for psycho-therapy. Since his specialised treatment at the Hospital he is making good progress.

(b). *Stammer and Lisp.*—Lisp entirely cured. Speech developed normally until one year, then patient had jaundice which affected the sight and the boy became blind for one month. Recovered sight, but an inhibition developed with the speech and child is now frightened to speak in front of strangers. Of late years impediment became worse. Intelligent child and progress is being made.

(c). *Stammer.*—A girl who had received treatment for cretinism with very good results. Inhibition of speech slight. A few treatments were given and general advice to the mother as to procedure. The girl has now left school and gone to work. Mother reports a great improvement.

(d). *Stammer.*—Onset of stammer at $2\frac{1}{2}$ years. Badly frightened by an aeroplane and stammer developed after. Good progress made. Co-operative mother who has acted on any advice given. Child now discharged.

(e). *Stammer.*—Progress very satisfactory, due to some extent to excellent co-operation from the school. Discharged for periodic observation.

(f). *Cleft palate.*—Child good intelligence. Speech now normal—excellent case.

(g). *Cleft palate.*—Most sounds missing. Good progress made owing to co-operation of mother. Child now discharged.

(h). *Lalling.*—Progress good. Tonsils need removal. Some difficulty in persuading parent to have operation done. When this operation is performed, the patient should make rapid recovery.

(i). *Lalling.*—Some deafness which hinders progress, but there is a decided improvement. Teacher very pleased with general improvement at school. This child is having aural treatment and there appears to be some improvement in his hearing.

I have just mentioned a few of the cases, giving notes on each as points of interest in the several types of cases. Generally speaking the periods of treatment range from one to six months depending on the following factors :—

(*a*). The severity of the cases.
(*b*). The intelligence and co-operation of the child.
(*c*). The intelligence and co-operation of the parents.
(*d*). The co-operation in the schools.

Several of the teachers have expressed regret that they have not been able to give the extra help with the exercises set by the Therapists, owing to various difficulties. Miss Pick and Miss Colls are hoping that later they will be able to have this help from the schools, as the progress made by the patients coming from these schools where co-operation in this way was possible has been so much more rapid.

The difference in progress was noted also in those homes where parents did not or could not co-operate and in those homes where co-operation was good.

Several teachers have reported to me how much improved the school work was of many of the patients who have received treatment at the clinic and who no longer feel themselves handicapped by speech defects, or different from the other children.

Physical Education.

The Director of Education has kindly supplied information with regard to Physical Training, School Canteens, etc.

During the past year there has been a general awakening to the value of Physical Education on the part of the public and the Board of Education have issued two circulars—1,445 on Physical Education and 1,450 on the provision of clothing and shoes for Physical Training. The encouragement given by the Circulars to the development of Physical Education in the schools was welcomed by the Committee and by the Teachers, especially as there has been a steady demand from teachers for refresher courses in this subject since the Board of Education published their Syllabus of Physical Training for Schools in 1933. In response to the Circular 1,445, the Committee decided to make available to Teachers greater opportunities for courses of this type than had been possible in the past. The Committee have decided to undertake the provision of gymnasia in Central Schools. They are also giving consideration to the difficult problems of the storage and cleaning of suitable clothing for Physical Training.

During the past year it has been possible to provide refresher courses at eleven centres. These courses have been taken by twelve Physical Education Advisers, who have been appointed to the Committee's Schools and are released from their Schools for two days each week to undertake work in connexion with courses and school visits.

The aim of the courses held during the present session has been to provide general instruction for non-specialist teachers serving in all types of schools. As the demand for admission to the courses far exceeded the accommodation available, it was necessary to limit attendance to those Teachers who were able to participate in the practical work. Before the courses opened the Advisers visited the schools from which teachers would be drawn and thus they were able to plan their syllabuses to meet the special needs of the schools in their areas. Follow-up visits have also been paid during the courses which have enabled Teachers to obtain help with their own problems in the conditions of their own schools.

The present courses have largely attracted the younger Teachers. It is hoped to develop the scheme by holding demonstration courses for Head and other Teachers who are unable to take part in the practical work, but wish to obtain knowledge of up-to-date methods of Physical Education. Where there is sufficient demand, specialist courses for Teachers in various types of Schools will be arranged and during the summer term the opportunity will be taken to hold classes in out-of-door activities and games.

Over 400 teachers have attended the general courses and it is hoped that a similar number will attend the various demonstration courses to be arranged during the summer term. The increased knowledge of and interest in Physical Education these Teachers have obtained by attending courses should quickly prove beneficial to the general health of the children in school. Teachers will be quick to make full use of the increased knowledge and skill which they have derived from the courses and the general health of the children will be greatly benefited.

It is necessary to remember that Physical Education can only succeed when there is a basis of physiological well-being. Exercise must be graded to suit the individual, and a careful watch be kept for undesirable reactions. Co-operation with the School Doctor is an essential part of any well organised scheme.

Provision of Meals.

The year ended 31st March, 1936, was a difficult one for economical catering, and, in addition, there has been a considerable reduction in the numbers attending canteens.

Catering difficulties were due to :—

(1) An increase in the costs of foods as the result of the control of supplies or of prices.

(2) The failure of fruit crops and particularly of the apple crop in 1935.

(3) The shortage of vegetables and consequent high prices.

The reduction in canteen numbers is attributed by teachers to :—

(1) The loss of field work by parents and children owing to the failure of the 1935 fruit crop and, in consequence, reduced incomes.

(2) An increase in the use of bicycles which has enabled more children to get home at mid-day.

As a result, although 18 elementary school canteens (out of 45) and 9 Central School canteens (out of 18) have met all overhead charges, as against 19 and 9 in 1934-35 and in 1933-34, only 18 out of the total of 64 (including Tonbridge Special School) have shown a profit on the year's working and many show a considerable reduction in their working balances.

The use of the books of improved recipes (in part or in whole) by several canteens has also contributed towards reductions in working balances.

The following comparison of the years 1934-35 and 1935-36 shows the increase in the average cost of the meal, and the reduction in canteen numbers :—

	1934–35	1935–36
Number of canteens	59	64
Average cost per meal (food only) ...	1·803d.	1·947d.
Average total cost per meal	3·233d.	3·530d.
Number of meals provided :		
free	14,123	18,326
for payment	961,439	956,842
	975,562	975,168

The average cost per meal (food only) and the total average cost per meal are higher than in any year since 1925. This is also the only year since 1925 when the total number of meals has shown a reduction on those of the previous year. This decrease is striking, as during the year five Central School canteens were opened, which provided between them 92,838 meals. Broadstairs, St. Peter's and Northbourne School canteens closed in June and November, 1935, respectively, but the numbers attending them were so small as to be almost negligible.

Canteen receipts for the last two years are as follows :—

	1934–35			1935–36		
	£	s.	d.	£	s.	d.
From parents	13,009	9	4½	13,276	13	1¼
From local organisations	60	9	8	72	10	4½
From private subscriptions, school concerts, etc.	115	4	6¼	198	2	2¾
From K.E.C. (Money grants) ...	13	1	8	5	15	6½
	£13,198	5	2¾	£13,553	1	3

The increase in total receipts from parents is strange in a year when the number of meals for payment is down. It is attributed to the larger number of Central School meals, at a rather higher price than other elementary school meals, and to the increase in the number of staff meals at Central Schools. Staff pay 7d.—10d. per meal. It has not been found practicable to keep the payments for staff meals separate from children's payments.

FREE MEALS SHOW AN INCREASE ON 1934–35.

1935–36	1934–35	1933–34	1932–33
18,326	14,123	20,917	22,345

The average total cost of 18,326 free meals for the year, priced at 3·530d. per meal is £269 10 10¾d. It will be seen that the cost is covered by receipts other than those from the parents and from the Committee.

The justification of the Committee's scheme is to be found in the fact that, during the 5 years ended on the 31st March, 1936, 4,476,598 meals were served in the school canteens, of which 83,859 were supplied without charge to necessitous children.

MILK IN SCHOOLS.

The scheme for the supply of milk at a cheap rate continues in a large number of schools in the county. The following figures have been obtained from returns submitted by head teachers : —

	November 1934	*March* 1935	*October* 1935	*May* 1936
Elementary Schools :—				
No. of Departments	549	551	545	546
No. of Departments with Milk Clubs	471	471	463	474
No. of Departments without Milk Clubs	78	80	82	72
Average Roll	82,062	81,427	79,782	80,078
Average Attendance	74,302	71,999	73,457	72,146
No. of Pupils Receiving Milk ...	41,862	37,514	33,703	31,505
Institutions for Higher Education :—				
No. of Milk Clubs	33	25	32	47
No. of Pupils Receiving Milk ...	4,616	3,460	4,191	4,910

In addition, a considerable number of children were receiving dried or malted milk preparations.

Included in the figures of those receiving milk are children who are being given it free on medical grounds under the scheme for the care of delicate children. A report on this scheme is given elsewhere in this report.

PATHOLOGIST'S REPORT.

The milks supplied to schools under the administration of the Kent Education Committee have been examined for cleanliness as in the previous year : it was not considered necessary to make any alterations in the frequency of examinations, the procedure for collecting the specimens, nor in the laboratory methods of counting the number of bacteria present. Biological tests for the presence of tubercle bacilli were carried out at least three times during the year on each supply of raw milk. As faulty pasteurisation does not necessarily destroy these bacteria, as an additional safeguard, it was decided towards the latter part of the year to carry out biological tests on all school milks, raw and pasteurised.

During the year 413 tests were performed on raw milks : of these 26 or 6·29 per cent were found to be positive, of pasteurised milks 51 were similarly examined and it is noteworthy that not one of these was positive.

The County Veterinary Officer was notified forthwith of the presence of tubercle bacilli in school milks, and in the majority of cases the infected animals were traced and slaughtered under the provisions of the Tuberculosis Order. In cases where no definite evidence was obtained of an infected animal or where numerous farms were involved in districts outside Kent, arrangements were made with the Suppliers that only milk from farms which the County Veterinary Officer considered to be " safe " sources of supply, would be supplied to the schools concerned.

There has been a decided improvement in the general standard of cleanliness of milk supplied to schools. Except for the summer term, when the percentage number of ' ordinary ' milks, which failed to pass the tests was greater than for the corresponding term of 1935, the percentage numbers which satisfied the tests were appreciably greater than in the previous year. Table 8 shows that whereas 20 per cent of all milks failed to satisfy the tests in 1935, only 12·08 per cent failed to do so in 1936. These results are at least encouraging and reflect the general desire of farmers to improve the quality of the milk.

Table 7.

SPRING TERM 1936.

Organisms per c.c.	" Pasteurised."	Ordinary.	All Milks.
Over 500,000	1	10	11
200,000-500,000	5	15	20
Total Milks failing Test	6	25	31
50,000-200,000	7	62	69
10,000-50,000	80	107	187
1,000-10,000	79	98	177
Under 1,000	11	14	25
Total Milks passing Test	177	281	458
Total	183	306	489

SUMMER TERM 1936.

Over 500,000	25	40	65
200,000-500,000	14	23	37
Total Milks failing Test	39	63	102
50,000-200,000	17	50	67
10,000-50,000	61	75	136
1,000-10,000	81	78	159
Under 1,000	24	13	37
Total Milks passing Test	183	216	399
Total	222	279	501

AUTUMN TERM 1936.

Over 500,000	11	16	27
200,000-500,000	11	13	24
Total Milks failing Test	22	29	51
50,000-200,000	11	45	56
10,000-50,000	36	116	152
1,000-10,000	137	93	230
Under 1,000	30	15	45
Total Milks passing Test	214	269	483
Total	236	298	534

Table 8.

Total Supplies for the Year, 1936.
(With similar figures for 1935).

Term.	" Pasteurised."		Ordinary.		All Milks.	
	Failed.	Passed.	Failed.	Passed.	Failed.	Passed.
Spring ...	6 (3·28%)	177 (96·72%)	25 (8·17%)	281 (91·87%)	31 (6·34%)	458 (93·66%)
1935	19 (10·9%)	156 (89·1%)	86 (27·8%)	223 (72·2%)	105 (21·3%)	379 (78·7%)
Summer ...	39 (17·57%)	183 (83·43%)	63 (29·16%)	216 (70·84%)	102 (20·36%)	399 (79·64%)
1935	33 (18·4%)	146 (81·6%)	69 (22%)	244 (78%)	102 (20·7%)	390 (79·3%)
Autumn ...	22 (9·83%)	214 (90·67%)	29 (9·73%)	269 (90·27%)	51 (9·55%)	483 (90·45%)
1935	21 (11·7%)	158 (88·3%)	63 (20·4%)	245 (79·6%)	84 (17·2%)	403 (82·8%)
Total 1936	67 (10·4%)	574 (89·6%)	117 (13·25%)	766 (86·75%)	184 (12·08%)	1340 (87·92%)
1935	73 (13·7%)	460 (86·3%)	218 (23·4%)	712 (76·6%)	291 (20%)	1172 (80%)

TOTAL EXAMINATIONS MADE DURING YEAR 1936	1,524
,, ,, ,, ,, 1935	1,463

Milk and Infection.

While all are agreed as to the value from a nutritional point of view, of supplying school children with milk, the risks involved if the milk is " raw " should be recognised.

Dr. E. R. Jones, the Senior Pathologist on the County Public Health Staff who is responsible for all examinations made on school milk supplies, writes as follows :

"Numerous researches during the past decade have proved the unique value of milk as an article of diet, a value in excess of that determined by a consideration of the calorific equivalent of its constituents. The conclusion has recently received further support from the Memorandum presented to the Minister of Health and the Secretary of State for Scotland on 'The Nutritive Value of Milk' by the Ministry's Advisory Committee on Nutrition.

"The dietetic value of milk, however, may be more than counterbalanced by the risk of disease contracted directly from it. It is a fluid which, while possessing all the essential constituents of food, forms a most suitable cultivating medium for low forms of life, fungoid and bacterial. Specific disease germs which have gained access to the milk may so grow and multiply in it as greatly to increase its power of infection. The infecting organisms may either be transferred from a diseased cow to its milk and through the milk to man or be introduced into the milk from the milkers and other persons who handle and deal with it, or from infected utensils.

"The diseases which are known to be conveyed to man through milk, directly or indirectly include tuberculosis, undulant fever, enteric fever and summer diarrhœa, scarlet fever, septic sore throat, diphtheria, dysentery, and staphylococcal food poisoning.

Tuberculosis.

"Tuberculosis is a fairly common disease among milch cows in this country. In Sir George Newman's Annual Report, 1932, the figure 40% is given as the percentage of milch cows affected to a more or less degree with tuberculosis, of which between one and two per cent yield tuberculous milk. There is no reason to suppose that this county is better than the rest of the country in this respect, as, during the eleven months ending November 30th, 1936, more than 500 animals were slaughtered in the County under the Tuberculosis Order.

"The number of milk samples found to be infected with B. tuberculosis varies from 6 to 10 per cent of the specimens examined. Of 436 specimens of school milks examined for Kent Education Committees during the period January 1st to November 29th, 1936, 27 or 6·2% of them were infected with tubercle bacilli and of 1,325 other samples examined during the same period 109 or 8·23% contained tubercle bacilli. It must be borne in mind too that milks from licenced herds, which come under examination by veterinary surgeons at least once every six months, are not necessarily free from these bacteria (vide Annual Report, 1935, Chief Medical Officer of Ministry of Health.)

"The evidence obtainable suggests that the bovine bacillus is quite as virulent for man as the human bacillus, and possibly even more so, and it has been shown that most non-pulmonary and a variable proportion of pulmonary cases of bovine origin are contracted through the agency of raw milk or cream. Dr. A. S. Griffith estimates that in this country not less than 6·9% of the total deaths from tuberculosis are due to infection with bacilli of the bovine type. The majority of bovine infections occur in children, and the usual type is glandular, osseous, and alimentary tuberculosis, together with miliary tuberculosis and meningitis in infants. Post mortem examination from cases of all ages classified according to the channel of entry of the tubercle bacillus showed that of 39 cases of alimentary infection, 82 per cent were due to bovine infection, and of 129 cases of respiratory tuberculosis, 0·8 per cent were due to the bovine bacillus.

"The following table showing the total number of deaths per million persons living in England and Wales, together with deaths in the Administrative County of Kent, all from non-respiratory tuberculosis, is of interest.

Year.	*Total England and Wales.*	*Deaths per Million persons living.*	*Total Non-Respiratory Deaths, Kent.*	*Percentage of Total Deaths in Kent.*
1934	5,200	128	144	1·01
1935	4,598	113	137	0·96

"The cost to the Kent County Council for the treatment of its non-pulmonary tuberculous population from October 1st, 1935 to September 30th, 1936, was over £25,000.

Undulant Fever.

"It is difficult to estimate the prevalence of undulant fever in this country: the disease is not easily recognised and we have reasons to believe that many more cases occur than are actually diagnosed. Referring to the disease, the Chief Medical Officer of the Ministry of Health states 'there is reason to believe that many cases escape notice. In support of this view may be noted the fact that quite lately cases have been discovered accidentally in which the fever began in 1927 and 1928 . . . . It is of interest to note that a number of the patients were consumers of special grades of raw milk designated under the Milk (Special Designations) Order, 1923.'

"It has been shown that there is a seasonal variation in the number of milks infected with these organisms. In an investigation extending over a period of twelve months, during which time more than 500 samples of mixed milks were examined by a biological test, the incidence was lowest in August when it was 3·6% and increased to its maximum of 29·5% in January and then declined. Most investigators are agreed that a very high proportion of raw milks are infected with these bacteria.

Enteric Fever.

"Milk, infected with bacteria of the typhoid group, has been responsible for several outbreaks of enteric fever. The more recent epidemics are :—

1. Bournemouth outbreak which involved 500 cases of infection with about 40 deaths.
2. Epping outbreak involving 312 cases with 8 deaths.
3. Small outbreak in Dover in 1926.
4. Montreal outbreak in 1927 involving 4,849 cases of infection with 489 deaths.

Scarlet Fever.

"As with enteric fever, outbreaks of scarlet fever have definitely been traced to the consumption of infected raw milk. The following may be mentioned as some of the outbreaks of scarlet fever due to milk :—

1. Denham, Buckinghamshire, less than 2 years ago : 90 cases with 2 deaths.
2. Hove outbreak, reported in 1931 : 1,200 cases with 65 deaths.
3. Chelmsford outbreak 1935 : the Medical Officer of Health of Chelmsford estimated that about 2,000 cases of illness occurred with 6 deaths.
4. Eton Rural District outbreak, 1935 : 87 primary cases and 13 secondary cases.

"A chronologic list of notable milk-borne epidemics of scarlet fever and septic sore throat from 1867 to 1929 is given by Dr. A. W. Williams in "Streptococci in Relation to Man." The one recorded by M. W. Taylor in the British Medical Journal 1870 II 624, occurred in 1867 in Penrith, and is the earliest milk-borne outbreak of scarlet fever from humans recorded.

Staphylococcal Food Poisoning.

"In May 1935, an outbreak of food poisoning involving 34 cases, occurred in a large fever hospital, and staphylococcus aureus was isolated from the milk, food prepared from the milk, and from the milk obtained from the cows which supplied the hospital.

"Outbreaks of diphtheria, dysentery, and summer diarrhœa have similarly been traced to milk infected by human carriers.

"In view of these facts, it is difficult to escape the conclusion that the drinking of raw milk is attended with some degree of risk. It is reasonable to suggest that the recent Bournemouth epidemic, for instance, is merely a repetition of what has happened elsewhere and of what will continue to happen unless some means is adopted of freeing milk from all possible chances of infection. The building up of healthy herds and more frequent veterinary inspection of cattle will obviously not remove all risks : the difficult problem is that of the human carrier. Dr. Spong; Medical Officer of Health of the Eton Rural District referring to the scarlet fever outbreak of 1935 says " The outbreak serves to show the potential dangers of raw milk. Had the milk been pasteurised this outbreak would not have occurred. However sanitary the farm and cowsheds may be, there is always the ever present danger of infection, either from the human source or the herd. The following fact may be alarming but nevertheless true, that unless all persons engaged in the production of milk are swabbed every 2 or 3 days, one cannot guarantee that they are not carrying disease germs, which may in one way or another, infect the milk. The only practicable remedy is, in my opinion, the pasteurisation of the milk supply of the whole country and mechanical bottling after pasteurisation." Sir Kingsley Wood, alluding to another outbreak states, " The outbreak illustrates once again the difficulty of ensuring, otherwise than by pasteurisation, a safe milk supply where the milk is derived from many sources and pooled before distribution." And Sir George Newman, in his annual report, 1933, states " The widespread contamination of milk with organisms of tuberculosis and undulant fever makes it impossible to recommend unreservedly this excellent food unless it has been made safe by efficient pasteurisation or boiling." There are numerous other people in authority, including Lord Dawson of Penn and Lord Horder, who are agreed that raw milk intended for human consumption should be freed of all pathogenic organisms by some form of heat treatment.

"There are three methods by which milk may be rendered free of pathogenic bacteria, sterilisation, pasteurisation and drying. The effect on the nutritive value of milk of subjecting it to any one of these processes has been examined very carefully and is a matter which is still under investigation.

"Sterilisation of milk destroys all pathogenic bacteria, only the sporing and highly resistant forms of bacteria can survive the process. The lactalbumen is coagulated, the fine emulsion of fat is destroyed, the caseinogen is hardened, there is partial precipitation of calcium and magnesium salts and phosphates, and the ferments and the anti-scorbulic element (vitamin C) is destroyed in the process. These changes render the milk less easily digestible and diminishes its nutritive value, but the popular belief that heating *seriously* lessens its food value is a mistaken one. The great disadvantage of boiled milk from the dietetic point of view is its insipid taste ; sterilised milk is unpalatable to most adults and children. So that these two facts combined indicate that some other form of treatment should be sought.

"Pasteurisation by the holder method has been shown to be a means of rendering milk safe from the presence of pathogenic bacteria. There has been much argument as to whether the temperature employed and the time at which the milk is held at this temperature are sufficient to destroy all bacteria capable of giving rise to infection in man, but the results of all recent work leaves no doubt whatsoever that pasteurisation properly carried out is an absolute safeguard.

"The taste of pasteurised milk is indistinguishable from that of raw milk, and its nutritive value is practically equal to that of the raw untreated milk. In support of this, Sir George Newman, Annual Report, 1933, states, " It is now generally agreed that available evidence points clearly in the direction that low temperature pasteurisation, if it affects the nutritive value of milk at all, can do so only to a very slight extent. This conclusion is supported by the fact that there is great experimental difficulty in demonstrating any alteration in nutritive value, and experiments purporting to do so are not without dubiety."

"Dried milks have been extensively used for feeding infants and expectant and nursing mothers with good results. They are uniform in composition, easily digested and free from all dangerous organisms. During the processes employed in drying the milk, some of the constituents are destroyed, but it is said that in some of them a considerable amount of the anti-scorbutic element, the most easily destroyed of the vitamins, is retained. Some of the lactalbumen and the soluble salts of calcium, are rendered insoluble by the process, but these essential elements, in addition to extra amounts of vitamins, can be easily added to the finished product. The odour and taste of the reconstituted milk is similar to that of boiled milk, but products are available nowadays, where the odour and taste have been so masked, as to make the food more palatable even than raw milk.

"As to the nutritive value of dried milk to growing children, the investigations of McCollum, Parsons, and Kalmbach quoted in " The Newer Knowledge of Nutrition," indicate quite clearly that the addition of dried milk to the diet of growing children not only produces a greater average increase in weight of the children as compared with the control children who were not given this additional item in their diet, but also that the vitality of the former was greater than that of the latter.

"It may be mentioned that there is an increasing number of schools in this country where children are given reconstituted dried milk as an alternative to ordinary milk and the opinions expressed as to its value, are entirely satisfactory.

"Good health and physical fitness cannot be measured in terms of money : the greatest debt of our children will be for the efforts which are being made at present to understand the problem of their feeding. When we come to study the diet of the school child, it is fairly clear that milk must receive prominent attention : it is necessary for the proper development of the child both physically and mentally, for the nurture of the mind may be delayed or even frustrated unless the nurture of the body be adequate ; it is necessary also for their future well-being. But it is just as obvious that there is no justification for giving any child a food, the taking of which is attended by risk of infection. If the children are to receive milk, it is our duty to guarantee, as far as it is humanly possible to do so, that we are giving them a safe food. Fortunately, it is possible to guarantee milk which is free from infection. The sterilisation of milk by boiling ensures its freedom from disease-producing bacteria, without impairing its nutritive value to a very great extent but unfortunately the taste of boiled milk is such as to make it very unpalatable to most children. Pasteurisation of milk, however, ensures a product which is safe and which is indistinguishable in other respects from raw milk: it may be a little more expensive, but this is more than counterbalanced by its safety. Unfortunately, however, small farmers in the country have not the apparatus for pasteurising their milk, and larger firms do not at present find it profitable to take their pasteurised milk to the smaller schools in out of the way country places. In such cases, reconstituted dried milk seems to offer a possible solution ; the little extra labour entailed in the preparation of the drink and the washing up presents a minor difficulty, but in a well organised school or with the expenditure of a few extra shillings per term, even this difficulty could be easily overcome."

Co-operation of Parents, Teachers, School Enquiry Officers and Voluntary Bodies.

NATIONAL SOCIETY FOR THE PREVENTION OF CRUELTY TO CHILDREN.

The services of this Society in securing treatment of various kinds, after the failure of other attempts, are invaluable, and deserve the fullest recognition. The uniform counts, of course, but expression of appreciation of the tact and forbearance on the part of the Society's Officers may be heard from the most unlikely quarters —from parents who might be expected to regard themselves as victims.

During the year the following cases were dealt with :—

Branch.	*No. of Children.*	*Visits made.*
Bromley	46	95
Canterbury	63	192
South-East Kent	22	29
Gravesend	42	76
Hastings	4	6
Isle of Thanet	22	63
Maidstone	15	53
Rochester	14	91
West Kent	13	53
Woolwich (Kent area) ...	13	66

KENT COUNCIL OF SOCIAL SERVICE.

EXTRACTS FROM
REPORT ON THE SERVICE FOR THE CARE AND SUPERVISION OF DELICATE SCHOOL CHILDREN.

Period 1st January to 31st December, 1936.

Because of the increase in this and other work under the Health Committee of the Council, a special Sub-Committee has been formed for the "Care and Supervision of Delicate School Children." The Committee has been in operation since July last. There are already indications of advantages resulting from this step, which facilitates supervision by those who have special acquaintance with the needs of the work.

A total of 888 children have been referred for the first time during the year 1936, as compared with 423 during the previous year.

The following help was asked for these new cases :—

Supervision	151
Milk	685
Cod Liver Oil and Malt	30
Cod Liver Oil	4
Milk and Cod Liver Oil and Malt	4
Milk and Cod Liver Oil	1
Glucose	2
Consent for Open Air School	7
Special references	4
	888

We are grateful to the Kent Education Committee for allowing the continuation of milk supplies to individual children on the merit of our Supervisors' reports, until a child is again examined by the School Medical Officer. This scheme obviates gaps in the supplies of extra nourishment which would be detrimental to the children's health, and does, we feel sure, stimulate the interest of our large band of volunteer Supervisors in the work which they are so faithfully carrying out.

KENT VOLUNTARY ASSOCIATION FOR MENTAL WELFARE.

Extracts from
Report of the work undertaken during the Year 1936.

During the current year there have been 461 feeble-minded children and young people under supervision. Information about 72 new children was received of whom 20 needed special investigation and reports. Eight Ascertainments were forwarded to the Committee, and of these seven needed some action in addition to medical examination with a view to classification.

The circumstances of twenty-three uncertified children have been investigated. All of these presented some particular problem, and special visits to the homes were necessary. Psychological examination of eleven children was arranged. Close supervision and following up of some of them has been necessary.

Fourteen of the children supervised (all boys) appeared in the Courts this year, nine of whom were feeble-minded. Three were admitted to Institutions, two are in Residential Special Schools and three others are awaiting vacancies. Ten out of the 14 charges were for larceny.

The number of children under supervision during the year was 461.

During the course of the year 61 names have been removed for various reasons, leaving 400 children under supervision at the end of the year, as compared with 380 on December 5th, 1935.

ADMISSIONS TO RESIDENTIAL SPECIAL SCHOOLS.

It is encouraging to note that Residential Special School vacancies have been easier to obtain this year. In addition to 14 children who have been placed, approximately 12 others have been recommended.

EPILEPTICS.

Though the number of epileptics under supervision is comparatively small, these patients frequently present a problem which seems practically insoluble, and some means of increasing the accommodation available for this type of child is urgently necessary. In addition to children of school age, some After Care children from Epileptic Colonies are under supervision, and advice in regard to obtaining employment has been given.

AFTER CARE.

Of the young people whose names were removed on reaching the age of 19 years, 16 are under Friendly Supervision on behalf of the Mental Deficiency Committee. Two remain under supervision of the Association and one is in the care of the Public Assistance Committee. Seventeen juveniles have been placed under Friendly Supervision this year.

TONBRIDGE BOARDING-OUT COMMITTEE.

Six children, three boys and three girls, have been under the care of the Boarding-out Committee this year. The reports have all been satisfactory and good all-round progress has been made.

Two boys have reached the age of 16 years and they left the Day Special School at Christmas. One is to return to his home and it is anticipated that he will find work on a farm where his brothers are employed. It will be necessary to continue supervision as the boy may be more fitted for some other form of work.

The other boy was placed on 23rd December, 1936 (under the Kent Guardianship Scheme) on a small holding on trial. This boy will be under the personal supervision of the Association's Guardianship Officer and every effort will be made to continue the progress made at the Special School.

One child has now left the care of the Boarding-out Committee, but not the Day Special School, as the parents have moved into Tonbridge. This little girl needs very careful management, and a local visitor has been put in touch, as her advice may be necessary if the improvement in the child is to be maintained.

The three children remaining on the list are well and happy. Thanks are due to the foster-parents for their care of the children during the year.

TONBRIDGE SPECIAL SCHOOL. AFTER CARE REPORT.

SUMMARY OF CASES.

There have been 37 cases under review this year, 25 boys and 12 girls.

Nearly all the young people are usefully employed, but there are two children whose home conditions are considered to be unsatisfactory. The young people under the Kent Guardianship Scheme were so placed in the hope that it would provide further training, as it was impossible for them to return to their homes.

It is found that the children who have left the Day Special School have benefited very considerably from the training they have received.

	Boys	*Girls*
Helping at home	4	4
Working (but not regularly)	2	—
Living at home, unemployed	—	1
Living at home, attending Occupation Centre	4	—
Kent Guardianship Scheme (small holding)	1	—
Kent Guardianship Scheme (Occupation Centre)	—	1
Daily domestic work (shop)	—	1
Gardening	1	—
House Boy	1	—
Factory	1	1
Building Trade	1	—
Brickfields	1	—
Attending Private School	—	1
Attending Central School	1	—
Residential Special School	2	1
Institution	5	1
Brighton Guardianship Society	1	—
C/o Public Assistance Committee ...	—	1
	25	12

Certificates of Mental Deficiency were withdrawn in four cases, and twelve cases were transferred to the Mental Deficiency Committee. Three were excluded or left the Special School as unsuitable, whilst a further three were admitted to Residential Special Schools. Four children attained the age of sixteen years, and left on this account, and one child was withdrawn by his parents. Details concerning the ten cases of the Boarding-out Committee will be found in Appendix 2 circulated with the Agenda of the Elementary Education Sub-Committee on January 12th, 1937, and this appendix should be consulted for details of other individual children.

West End Hospital for Nervous Diseases.

Three cases attended for examination.

Tavistock Square Psychological Clinic, London.

Two cases attended for examination.

Blind, Deaf, Defective and Epileptic Children.

Tonbridge Special School.

The Head Teacher reports as follows:

" The number of children on roll is 45—32 boys and 13 girls. 24 of these come from Tunbridge Wells, 5 from Southborough, 6 are boarded-out and 10 are from Tonbridge. I have admitted 17 children during the year and 6 children have left. The health of the children on the whole has been good. The percentage attendance for the year is 90. During the year we have taken over the Domestic Science Class ourselves instead of having a visiting mistress for this subject, and we have furnished a bedroom where the girls can have real training for domestic service. The reorganising into a 3 class school is proving to be a great advantage to the children. It allows the brighter young children to proceed without the feeling of inferiority of being in the low grade class."

Dr. S. A. Tucker (Medical Officer) reports as follows :—

"The three class system is justifying itself and more progress is apparent among the children of the higher grade sections. Fewer lower grade children are now being admitted.

The School as at present organised does not cater efficiently for older children.

The boys from 11—16 get one half day woodwork and one half day gardening per week under a male teacher.

In a school of this type, which is meant to supply the needs of children up to 16 who have no hope of entering on clerical careers, it is essential that more time should be given to such manual work as will be useful to them in after life.

The senior girls now have only one day's domestic work weekly, so that they are almost as badly situated as the boys in this respect.

From all one can ascertain, the proposed new temporary building is not likely to ease the situation as regards additional manual work."

Full Time Courses of Higher Education for Blind, Deaf, Defective and Epileptic Children.

There is nothing further to report.

Nursery Schools.

There are no Nursery Schools in the area.

Secondary Schools and Other Institutions of Higher Education.

Medical supervision of secondary schools is organised on the same general lines as of elementary schools, but stress is laid on different age groups in accordance with the higher ages in the former. Entrants and ages 11, 14, and 16 are regarded as " routine " groups.

Compared with 1935, there is little change in the total number of pupils examined, though 369 against 129 in 1935 were presented for special investigation.

Table 14 *(b)* on page 63 shows the classification of nutrition among the pupils of these schools.

As was to be expected, the figures are more favourable than the corresponding ones for elementary schools. Only six cases of bad nutrition were recorded in nearly 9,000 examinations.

Dental inspection and treatment was introduced in one of the schools for higher education with very satisfactory results, 100 per cent acceptances being recorded. The Committee is considering the desirability of determining the need for similar assistance throughout the secondary schools.

The facilities provided for the treatment of elementary school children are available also for free place holders in the secondary schools and for any other children in need of help. Ophthalmic treatment is given in other cases on payment of 7s. 6d.

Employment of Children.

The enforcement of the law in regard to street trading and the employment of children has continued without serious difficulty. Further experience has confirmed that by-laws permitting the employment in street trading of young persons under sixteen by their parents, or by-laws regulating street trading by young persons between the ages of sixteen and eighteen years are unnecessary.

The registration of children employed, and the issue of licences provided for in the new by-laws regulating the employment of children, have resulted in increased efficiency in the supervision of the employment of children. The following are particulars of the children employed on the 1st October, 1936 :—

Nature of Employment.	*No. of children employed.*
Sale, or delivery, of milk	19
Sale, or delivery, of newspapers	62
Carrying, or delivering, goods or parcels ...	200
In connexion with any shop, or stall ...	19
Agricultural work	10
In coal yard	—
Industrial work at home	1
Domestic work	12
Other occupations	13
	336

There has been an increase in the number of licences issued to children to take part in entertainments, the number being 28, as compared with 13 for the previous year. All applications are carefully considered and licences are issued only after all the requirements laid down have been complied with.

Children and Young Persons' Act, 1933.

REMAND HOME.

Dr. C. Campbell (Medical Officer) reports as follows:

"The Committee's Remand Home, Maidstone is being increasingly used by the Juvenile Panels of Justices. Between September 1st 1935 and 31st October, 1936, 200 boys were admitted to the Home of whom 117 were over the age of 14. The average number of boys on remand in Maidstone during the year has been 8·3 and the average length of stay has been 17·7 days. The highest number in the Home at any one time has been sixteen.

"During the day the boys are kept fully occupied under constant supervision in house duties, gardening, or woodwork and the evenings are kept free for reading and recreation. Reports on their work and conduct and special reports arising out of their medical or psychological examination are sent to the Juvenile Court. Although some cases chiefly of minor ailments are treated from time to time, my chief concern is in making the medical and psychological examinations and providing the reports. A statement of the mental ability is asked for in all cases, and I have found that it is generally unsafe to gauge the mental ability without considering the results of a Binet-Simon Test together with all other relevant information. Even when combined with a reasonably bright appearance, loquacity and self assurance are no guarantee of normal mental ability, and after a few surprising test results with this not infrequent type of boy, the danger of expressing an opinion after a few minutes general conversation is quickly appreciated.

"In a psychological examination, besides considering the intelligence and school attainments, one has to study the temperament, character, family history and environment in relation to the delinquency. A very detailed life history is essential if recommendations based on the findings are to be of value. Reports from social workers, probation officers, schoolmasters or relatives are helpful but are seldom available. As a rule the boys themselves are the only sources of information, which even when obtained from boys who are mentally normal, may be distorted or biassed. As most of the boys are constitutional psychopathic inferiors, pathological liars are relatively common and their statements must be checked if possible.

"In most cases probable causal factors were found, and in some were apparently trivial and easily removable. These were not common however, and usually occurred in boys of normal intelligence. Generally there was combination of such factors as poverty, strained relations or poor discipline in the home, unsuitable companions and inadequate recreation in conjunction with low intelligence and lack of judgment. Most of the boys were "dull and backward" with intelligence quotients round about 80. A few were of normal intelligence and 10 were feeble-minded. They were generally healthy, and physically tended to extremes, being either small and undernourished or large and robust.

"Stealing was the commonest offence and in a large number of cases the thefts were from gas meters in empty houses.

"Sexual misconduct occurred most frequently in well developed adolescents whose chronological ages were far ahead of their mental ages.

"Nocturnal enuresis was common in the first six months but there have been few cases recently.

"Later, if after histories are forthcoming I hope to describe some of the cases in detail.

"The work although interesting is also time consuming and up to the present I have had to limit myself to essentials."

Parents' Payments.

There is nothing to add to my report for the year 1934.

Special Enquiries.

Special enquiries have again been conducted by certain of the assistant school medical officers during the year, and the following reports have been received :—

REPORT OF ASTHMA AND OTHER DISEASES OF SIMILAR CAUSATION IN SCHOOL CHILDREN.

by Dr. S. A. Tucker.

During the past year an endeavour has been made to collect some information as to the occurrence, cause, treatment etc. of asthma and other diseases of the same nature, (known as allergic) in children attending Elementary and Secondary Schools. Time devoted to this end, has been limited, owing to the amount of routine work which has to be performed, and the cases so far collected can only be regarded as the nucleus of a much larger number which one hopes to be able to investigate during 1937.

Children with true asthma form the main group dealt with in this report, though the group of diseases known as Allergic includes many well known names such as Hay Fever, Recurrent Nettlerash (Urticaria) certain forms of Dermatitis (Eczema), cases of Migraine ; some kinds of Gastric Enteritis and certain types of Epilepsy.

The definition of Allergy may perhaps best be expressed as an altered activity or re-activity, i.e. the allergic individual re-acts differently to certain stimuli with which he comes into contact as compared with the normal person.

Thus particles of dust, pollen, or animal emanations set up an attack of asthma in a susceptible person whereas the normal child or adult is entirely unaffected. An allergic or susceptible individual may be compared to a " difficult " or anti-social child whose re-actions to ordinary social contacts and stimuli differ from those of the normal and well balanced.

Asthma is the easiest and most clear cut malady of this group with which to deal and investigate ; also it is probably the most distressing, and in its end results perhaps the most damaging to health and well being. It is of fairly common occurrence. Possibly too, it is the least well treated being the most difficult to treat.

There seems to be far too great a tendency to treat symptoms as they arise, (a most necessary proceeding) without fully investigating causes.

Often the parents are told the child " will grow out " of the complaint—an all too common expression. How many times have not medical inspectors met the child with stooping shoulders, deformed chest more or less constant cough, whose lungs never seem free from catarrhal sounds, who is emphysematous and short winded and is quite naturally a bad attender at school because of frequent severe attacks of asthma.

These are pitiful cases, happily not frequently met, but often enough to make one wonder whether treatment has been really thorough or started early enough. This is not to say that all cases of asthma are wholly curable, a few may not be, even when treatment has been early and efficient, but it is certain that given good conditions few need arrive at the state described above.

There are one or two other important factors which have to be considered in dealing with allergic individuals ; one is :—

The Nervous Factor.—Children (and adults) subject to asthma and allied diseases appear to have a hyper-irritability or instability of that part of the nervous system known as the vagus (or autonomic) system.

Not only is this vagus system too active but it responds too easily to stimuli which would not affect that of an ordinary mortal. This " on edge " condition is known as the trigger mechanism.

Once the asthmatic has fully developed this type of nervous unbalance the usual exciting stimulus (dust etc.,) need not always come into play to produce an attack. Weather conditions, colds, indigestion or even fright are examples of causes which may induce asthma in such cases.

Other Factors.—Lowered resistance at point of contact or entrance of allergen as instanced by such things as lesions or defects of nasal mucous membrane—polypi (nasal), enlarged and unhealthy tonsils and adenoids.

Defective action of the liver may predispose to an attack of urticaria or even to asthma or hay fever where food stuffs contain the allergens.

Damage to intestinal mucous membranes may play a part in bringing on attacks of various kinds of allergic disease.

It will be seen from the foregoing that an attack of asthma or urticaria is not solely dependent on the mere contact or absorption of the specific allergen. This then renders the most thorough and exhaustive examination of the sufferer essential, if treatment is to be effective.

From a consideration of the actual cases of asthma investigated, the following are some of the conclusions reached :—

Sex.—Boys definitely preponderate in numbers.

Onset.—Generally quite early in life. Usually in infancy. Frequently follows attack of infectious disease, such as whooping cough or measles.

Hereditary Factor.—No very definite evidence from this series.

There is little doubt however, that there is a quite marked hereditary tendency in allergic diseases though the form taken may be different in different members of the same family. Thus, one may have asthma, another hay fever or urticarial attacks

Causes.—Of those cases examined who had been fully tested by the usual skin method (about half of my cases), dust and pollen gave most positive re-actions. One re-acted to eggalbumin.

Other case re-actions, one to horse emanations and one to starch.

ALTERNATE MANIFESTATIONS IN ASTHMATICS.

One case had had a severe attack of eczema of the scalp in infancy ; one boy had quite bad ichthyosis.

Another boy, whose parent was questioned, appeared to occasionally have skin eruptions on the face chiefly about the lips when, as the mother said, they expected an attack of asthma. This was probably herpes.

LENGTH OF ATTACK.

In this series usually from a few hours to three days. This of course applies to the " difficult breathing " period.

EFFECT OF WEATHER ETC.

Weather conditions seem to have definite bearing in bringing on attacks. Here are some examples :—

(1) Wind, fog or extreme heat causes attack.
(2) Bad weather.
(3) Always starts with " cold in the nose."
(4) Worse in summer. (? Dust).
(5) Worse in winter.

THROAT AND NOSE CONDITIONS.

Case 1. Tonsils and Cervical Glands palpable.

Case II. Had operation tonsils and adenoids. Better since.

Case III. Had operation tonsils and adenoids age 7. Now 13, still a mouth breather. Frequent attacks.

Case IV. Boy of 12. Had operation tonsils and adenoids at 7. Much better last year or eighteen months.

Case V. Boy of 6. Much hypertrophied nasal mucous membrane.
Case VI. Boy of 8. Better since operation on throat.
Case VII. Bad case. Had operation tonsils and adenoids few months ago. Little better.

HOW CASES ARE BEING TREATED.

It is rather difficult to obtain reliable information as to exact treatment. Some of these children appear to have treatment only for the attack.

One boy with bad bouts was sent to a Convalescent Home in the Isle-of-Wight for a period of months. He was much better there, but on his return the attacks recurred.

A girl was also sent to a seaside Convalescent Home and improved, but is now again getting asthmatic bouts. A small number of the children seen have attended one or other of the large London Hospitals. The cutaneous tests for causation have always been used, and certainly these children have benefitted by their treatment and the advice given as to food and hygiene. One parent whose child re-acted to dust and protein produced a prescription which she said had been very beneficial. It was one containing pepsin and diluted hydrochloric acid. Some cases of hay fever do well on similar mixtures.

DEFORMITIES SHOWN.

Three or four boys of the small number examined were already showing chest deformities and there was a definite tendency to emphysema and chronic bronchial catarrh in such cases.

OTHER.

The parent of one patient told me that her child had " brought up blood " in one attack.

Another that her child always had a high temperature at the onset.

OTHER FORMS OF ALLERGIC DISEASE OF COMMON OCCURRENCE :—

Recurrent Urticaria (*Nettlerash*).—In the course of routine medical inspections one frequently comes across children who suffer from attacks of nettlerash which one is told recur at intervals. Sometimes the cause is easily traced (viz. fruit, fish, etc.,) but in many there is no very evident cause and the attacks are persistent. These attacks affect principally the younger children and there is a decided tendency for their disappearance at a fairly early age. Perhaps it would be safe to say that they are uncommon after 10 years of age.

Many of these children acquire this type of disease in early babyhood. Those who have attended M.C.W. Centres regularly and have had recurrent attacks whilst in attendance have been " followed up " on entry to school, and in the majority, attacks have continued for one or more years.

Often it appears to be a continuance of what is loosely known as teething or gum rash and not unnaturally appears to occur more in those who have been partly or wholly bottle fed.

The only really sensible method of dealing with such children is by attempting to get the parent to keep a rough diet sheet, and so endeavouring to ascertain the cause. As may be imagined this is not easily accomplished.

The lesion most commonly met with is a series of wheals on trunk, arms and legs which culminates with a papule or vesicular centre often replaced by a scab owing to scratching engendered by acute irritation.

Eczema (*Dermatitis*).—Cases recorded so far include few which may be called allergic.

One child suffering from asthma also suffers from eczema.

Migraine. (*Sick Headache*).—Usually one sided. A few older girls appear to suffer in this way and are probably allergic, as there is no physical cause discoverable.

One boy recently seen had what seemed typical migraine headaches, but the cause was an infected antrum.

OTHER TYPES OF ALLERGIC MANIFESTATION.

Epilepsy.—No cases seen.

Acidosis.—Probably in some cases, allergic, particularly those types with cyclic vomiting. None in present list.

CONCLUSIONS. IN REGARD TO ASTHMA.

As the onset of attacks is quite frequently very early in the child's life, it is highly important that treatment should be started at the earliest possible moment. It is well known that though many children do appear to " grow out " of the complaint, the earlier the cause is ascertained and the treatment started the more chance is there of the child avoiding the bad end results described above.

Another point already mentioned is that the fewer attacks the child has the less likelihood is there of his or her developing that state of nervous unbalance in which the trigger mechanism operates.

There is probably no disease in which a more exhaustive and thorough examination of the whole body is indicated. Cutaneous tests should always be applied and should be performed by an expert in their interpretation. The throat and nasal passages, particularly in cases of air borne infections, require very careful investigation. If an operation on the nose or throat is decided on, it is better in the air borne infections to avoid the pollen season for this procedure.

Gastro-intestinal defects and malfunctions should be treated, and where tests do not give results in cases of suspected " food " asthma, a diet sheet should be kept.

When a result is given by the skin tests it is sometimes only necessary to avoid the specific cause in order to affect a cure, and in any case avoidance of the cause is more than half the battle.

A child from a poor family obviously stands a very poor chance of being able to carry out the necessary treatment, and one is inclined to think that prolonged Hospital or Convalescent Home treatment is the only sure and safe method of cure in such cases.

When one thinks of the very rigid and strict hygienic precautions an asthmatic, whose allergens are dust, feathers etc., has to adopt, one realises how little chance the child of poor parents possesses.

What has been said about the treatment of asthma applies in much the same way to the other forms of allergy mentioned. The chief difference is in cause, which in these forms is far more often food allergy (except in hay fever) than dust or other air borne substances and the point of attack more often gastro-intestinal.

Once the cause is definitely ascertained there is very real hope of a cure.

REPORT ON SOME EXCEPTIONAL CASES NOTED DURING MEDICAL INSPECTIONS.

by Dr. J. Selfe.

CEREBRAL TUMOURS.—It is always well to bear in mind that a child may be suffering from cerebral tumour. I have personally seen two such cases. In one case the only symptom was violent and continuous headache for which no definite cause could be found. The child attended Hospital and later, I believe, died. The second child exhibited squint, headache and vomiting. This child was provided with glasses for the strabismus and also attended hospital. Owing to the relative ease with which the cranial sutures can be separated and the head enlarged in young children, signs of intra-cranial hypertension are less obvious than in the adult. Headaches, therefore, and vomiting may be absent or present only in mild degree. In all cases of recurrent headache and biliousness the optic fundi should be examined. The chief localising signs of cerebellar tumours are giddiness, vomiting, staggering gait, inclination of head to one or other side, hypotonia, nystagmus, squint and coarse tremor of the extremities on volitional movement. Tumours of the mid-central region are characterised by ocular paralysis, and tumours of the cerebral hemispheres give rise to hemiplegia often associated with epileptic attacks. Tumours of the pons usually cause paralysis of one or more cranial nerves—supra-pituitary tumours result in the condition known as Fröhlacks syndroma. In tumours of the pineal gland there are signs of increased intra-cranial pressure associated with a state of precocious puberty.

MEDIAN THYROGLOSSAL CYST.—One case of this kind was seen at the Welling School Clinic. Its character was that of an infrahyoid cyst, and developed in an unobliterated portion of the thyroglossal tract below the hyoid. The cyst was not attached to the skin and moved in the act of swallowing. The child was referred to hospital and the cyst was successfully removed.

CONGENITAL DEFORMITY OF JAW.—One case noted in a girl. The child's teeth could only be separated to the extent of half an inch. The case was referred to hospital but no treatment was available.

CERVICAL RIBS.—Two cases were recognised at routine inspections. As is well known, supernumerary ribs may be met with in connection with the seventh cervical veterbra. It is rare for this condition to cause symptoms in childhood and when discovered at this time is usually by accident. In the cervical region such ribs may cause symptoms of compression on the cords of the brachial plexus such as pain, formication or weakness of the limbs, and may necessitate an operation. In one of the cases seen the girl had a good deal of pain down the right arm together with formication. The child was referred to hospital and the rib successfully removed. In the second case, also on the right side, no symptoms were present. On palpation the ribs could be felt in each case.

HIRSCHSPRUNGS DISEASE.—The patient is usually a boy who has suffered from marked constipation since birth, the bowels never having been opened without cathartics or the use of enemas. Examination shows that the distension is due to marked dilatation of the whole or part of the colon. The one case examined had been attending hospital for several years and was gradually improving under treatment. The boy did not appear toxic and there was very little wasting, the only sign present was abdominal enlargement.

THOMSENS DISEASE.—One case occurring in a girl was seen. When myotonia congenita begins in early childhood it leads to a striking over-development of all the muscles, together with increase of strength. The most noticeable defect in such cases is the inability to initiate muscular action, but once started control becomes normal. The girl in question when asked to open her eyes after closing them took a long time to do so together with the expenditure of much effort. All the other functions of her body were normal and her intellect was unaffected. With time, the patient learns how to minimise his or her infirmity and to prepare by preliminary movements for expected exertions.

PAPILLOMA OF LARYNX.—One such case was seen in a boy attending the School Clinic. It is a rare affection and does not generally produce symptoms until the child is two or three years of age or more. The main symptoms which characterise it resemble those of recurrent laryngitis, stridulous breathing, a hoarse cry, and a croupy cough ; and they generally get worse in spite of treatment. In the case of the boy the only sign was that of chronic laryngitis. He was attending hospital where the diagnosis of papilloma was made.

HYSTERIA.—Hysterical paralysis much oftener affects the lower than the upper extremities and paraplegia is commoner than monoplegia. The paralysis may be either spastic or flaccid. The former is the more usual type and is often accompanied by flexor spasm and contraction of the joints. The patient complains of excessive pain on movement of the affected limbs. I have seen one case of hysterical paralysis in a girl of ten years of age who was brought to the Clinic for advice. In this case the right knee joint was contracted and markedly flexed and there was a good deal of spasm. On passive movement the child screamed. There being no other cause apparent to account for the child's condition, a diagnosis of hysteria was made and the child referred to own doctor.

ACHONDROPLASIA.—Three cases were noted. Achondroplasia is due to interference in the early months of fœtal life with the development of the cartilaginous bones. As the child grows, the trunk becomes disproportionately long in comparison with the limbs, so that with arms hanging by the sides, the tips of the fingers may not reach lower than the hip joint. The joints of the limbs are enlarged and the fingers can be opposed at the proximal, but not at distal phalanges ; thus giving the hands the characteristic trident shape. All the three cases, which were of the male sex, were quite typical, and exhibited the beetling brow, lordosis, dwarfism and waddling gait. Their mental state was normal.

Osteitis fibrosa cystica—In this condition there is an excessive development of fibrous tissue in the marrow area of the long bones resulting in the formation of cysts and weakening that portion of the bone affected. The most common type is that in which one bone is affected. One such case was seen at the School Clinic occurring in a girl of 9 years of age. The left humerus was affected and the diagnosis was only made by roentgenogram following a dull pain experienced in the arm.

Spina Bifida.—Save in some cases of meningocele and spina bifida occulta when the local signs are the only evidence of the abnormality, there are associated phenomena depending upon involvement of nerve tissue. In the one case seen, the bladder and rectum were affected and there was paralysis of the lower extremities. A cystic tumour was present in the lower lumbar region of the spine and made the diagnosis definite ; but in spina bifida occulta it may sometimes happen that there is no change in the appearance of the overlying skin and the condition may not be discovered until the 10th or 11th year when trophic disturbances, paralysis or interference with the function of the rectum or bladder may direct attention to the possibility of some spinal abnormality

Purpura Arthritica.—One case was observed in a girl of 12 years of age who complained of swelling of her left ankle joint together with pain. On inspection of the joint definite raised purpuria spots were found.

Muscular Dystrophy.—One definite case was noted in the Sidcup area and occurred in a boy of 9 years of age. He was a very typical case exhibiting enlargement and hardness of the calf muscles, waddling gait and lordosis. It was of course a case of pseudo-hypertrophic paralysis. The disease tends to run in families affecting males more often than females and is transmitted to the next generation by the unaffected female members.

Congenital elevation of the Scapula.—A few cases have been noted during the course of school inspections. It is a somewhat unusual congenital deformity, in which one scapula is raised in its relation to the thorax and clavicle and also to the opposite scapula. The scapula is not only raised, but generally so rotated that its upper angle approximates to the spine. Scoliosis exists in connection with it, in the majority of cases, and in some cases torticollis together with asymmetry of the face and skull have been noted. In one class of case a bridge of bone connects the scapula and the vertebral column. In the cases seen there were no bony connections with the spine but limitation of abduction of the arm and scoliosis were present.

Idiopathic fragilitas ossium.—Two cases came under observation. Both children had sustained multiple fractures of the long bones and both exhibited definite blueness of the sclerotics.

Erythema Nodosum.—At least six cases have been observed and all occurred in rheumatic subjects. There was no evidence of tubercle.

SUBNORMAL NUTRITION AND FAT INTOLERANCE.

by Dr. W. Lessey.

In the course of the milk enquiry last year in relation to nutrition I was astonished at the number of children who were unable to take milk and who were also subnormal in nutrition.

This year I have undertaken an investigation at a number of schools of the children in the seven to eight year group who were of subnormal nutrition, in order to ascertain conditions which have a bearing on the nutrition, with special reference to those who show a milk and fat intolerance. The investigation was carried out in twenty-nine schools.

On the whole the state of nutrition of children in my area is good. This is probably due to the favourable circumstances of the parents, and to the opportunities the children have of taking advantage of the seaside air and sunshine. A great number do take advantage of seabathing and sunbathing. In the selected schools the number whose nutrition was below normal was 90 and of these 15 were classed as bad.

The enquiry was more complete in those children (53) whose parents were present. Then the history was carefully investigated.

The conditions found which had a bearing on the subnormal nutrition were the following :— neglect—7, improperly balanced diet—7, poverty or large family—6, chronic bronchitis and asthma—3, premature birth (or abnormally small from birth or twins) —10, septic tonsils—7, worms—2, septic teeth—3, rickets—2, recent mastoid disease—1, unable to take milk, butter, fat or fatty meat—25, nothing found which had a bearing on nutrition—17. Many other defects were found but these did not appear to have any bearing on nutrition.

Reviewing the fifteen bad cases separately, the causes of malnutrition were as follows :— neglect—2, improperly balanced diet—1, poverty—1, premature birth—1, fat and milk intolerance—6, nothing found—4.

The children with a fat intolerance were generally of a similar type.

They were thin and wiry, generally active physically and mentally, nervous, sensitive and imaginative and were usually above the average in work.

They had poor appetites and would pick and choose at things and can never be persuaded to have a good meal.

They avoid butter, milk, dripping, meat and anything with fat.

When persuaded to take anything with fat they develop a bilious sick turn which interferes with their appetite for a few days.

These children suffer from fat soluble vitamin deficiency and usually benefit by a course of treatment with glucose containing fat soluble vitamins.

Faulty Posture in Children with special reference to Round Shoulders.

by Dr. G. Stableforth.

In making this investigation, my idea was to enquire into possible causes of even slight cases of bad posture and not dwell only on those which showed marked anatomical changes, with the hope that early detection would produce early correction and so prevent mis-shapen bodies involving months of treatment.

It has been stated by orthopædic surgeons that a correct diagnosis should be made as soon as possible, since so much depended upon *early* treatment, and that a thorough examination should be made with the clothes stripped to below the waist of the patient so that the whole back can be seen. From a statement like that it is obvious therefore that medical officers in the School Medical Service have a great opportunity in the course of their work for making the necessary early diagnosis. It has been definitely stated that prognosis necessarily varies with the stage which the affection has reached. In the early days before the deformity has become set and when it disappears on extension of the spine, it is almost certain to be entirely cured *if* suitable precautions are taken. Later on it can be improved to some extent, but in bad cases all that can be expected is to prevent it from getting worse.

My enquiries have taken the form of questions as follows :—

(1) Previous illnesses.
(2) General condition.
(3) Eye defects.
(4) Bed-times.
(5) General habits.
(6) Clothing.
(7) Age.
(8) Desks, etc.
(9) General remarks.

Previous illnesses.—(a)—chest conditions—pleurisy, pneumonia, asthma, chronic bronchitis—6% of the cases had such histories—the chronic bronchitics and the asthmatics showing the most marked round shoulders, stiff shoulder-girdles, tight pectoral muscles and thin chest walls. One child of eight years of age had had three attacks of pneumonia within the last five years. As would be expected her muscle tone was very poor, and also chest expansion and stance " drooping." There were many children with histories of recent attacks of whooping-cough (within the last two years) and who had developed " winter-coughs," showing depressed chest-walls and definite kyphosis.

(b) Stomach affections—histories of bad attacks of gastric influenza (recurrent) and chronic dyspepsia were noted in 2% of cases. In 1935 there were several children attending the clinics who had lost a lot of weight following gastric influenza and who had had recurrent attacks of pain and sickness over periods ranging from 1-3 months.

Appendix abscesses with operations and on return to school no physical work for a few months being allowed, was the history in a few cases of kyphosis. Umbilical hernia—one or two cases. I am aware that these cases quoted under gastric affections could appear as general debility, but I feel that there is the added factor of local pain and trouble causing the patients to depart from the upright posture to account for development of faulty stance.

Rheumatism—marked history in 2% of cases, either that of acute rheumatism or recurrent subacute attacks. One child was a very bad case of kyphosis with definite nodules found round the scapulæ. She has been attending one of the orthopædic clinics for many months now.

Old Tuberculosis.—In 1% cases there were histories of tubercular adenitis (cervical) and tabes mesenterica.

Heart defects—functional and organic. These were found in 2·5% of the cases. The functional of course were frequently caused through general debility and anæmias.

Infectious diseases.—In 1% there were recent histories of scarlet fever and diphtheria. Of the latter one child was recovering from a bad paresis of the limbs.

Adenoidal conditions.—3% cases with the associated flat chest and round shoulders.

Poor nutrition.—Apart from the debilitating affects of illness, there were 19·2 cases showing poor nutrition with the consequent lack of muscle tone and bad posture.

Defective vision.—This occurred in about 6% cases—the usual deformity being the " poking-head " with or without kyphosis.

Bed-times.—(a) very late 4·1%.
(b) late 18·2%.

In a previous article I mentioned the frequency of bad posture in these cases. I have tried as far as possible to omit under this heading any of the cases previously reported under " previous illnesses."

General habits.—Many in this group would appear in the earlier findings—for example the " bed-times," " bad nutrition " and ill-health had many marked in this section as showing signs of " nervousness," " nail-biting," etc. Apart from these there were in about 10% cases nothing of note which could be discovered apart from faulty habits of stance being allowed to develop, some having advanced to a definite stage of rigidity. Some were marked as " shy and retiring." How much a nervous factor was the underlying cause I am unable to say. The teachers in the school and the parents at home would be of great service to this group if they would tactfully remind a child that he or she is sitting or standing badly.

A little encouragement given when the effort is being made would be very helpful. The child is usually completely unaware of faulty stance, and the very young particularly do not realise what it means unless it is demonstrated to them. I found in the children up to eleven years, that when asked to stand properly their idea was to raise the shoulders and arch the back (lordosis). It would be beneficial if in the gymnastic classes at school the correct method was made clear, particularly in the early stages. A little more sense of body poise and balance instilled from the beginning would be well worth the time spent in obtaining it. I have discussed this with one or two leading instructresses of physical culture and they have been in agreement with me on this matter.

Clothing.—The majority of children to-day are very suitably dressed and there are few cases in girls where clothing is at fault. A probable cause of " poking-head " is where the coats are worn with high collars and the brim of the hat down, " fighting with the collar," and in avoiding the discomfort of this, the heads are pushed forward.

I saw only one bad example of an overclothed child, a little girl who suffered from bronchitis, and the parent in her anxiety had dressed her in so many garments that it was extremely difficult for the child to move her arms and shoulders at all.

School furniture.—In the greater number of schools in my area this was a matter that had received attention. For those cases of " misfit " into the gradings of desks in the class, I have wondered if an adjustable seat or desk would be of help.

Age.—No particular age group was immune from bad posture, but I noticed a *marked* tendency round the age of puberty for a slackening in children who had previously been normal in stance.

In one school where I examined a group of girls of thirteen years of age, a large number of whom were very overgrown, it was decided by the teacher on my advice, to devote a portion of each gymnastic class to the giving of remedial exercises for the bad posture for a trial period of one term.

In summing up from the observations made, I formed the opinion that it might be of service in the prevention of bad posture if :—

(*a*) More training was given to the very young school children on the meaning of good stance and more time devoted to obtaining it.

(*b*) Careful watch of young adolescents for any development of bad posture.

(*c*) Breathing exercises were advised (at home) in the chest cases such as asthma, frequent bronchitis and after whooping cough.

(*d*) Improvement in general nutrition could be obtained and maintained. At the Parents Association Meetings at the schools, talks are often given. A few on dietaries would be of help to the parents.

(*e*) A continued effort was made in the direction of earlier bed-times for children.

SUB-NORMAL NUTRITION AND SUMMER TIME.

by Dr. F. Wolverson.

It can be said that, in many respects, children are the best looked after section of the community. Under state organised supervision and with voluntary aid a distinct improvement in child nutrition has resulted. A comparison of photos of groups of school children of 30 and 40 years ago with those of to-day shows definite progress.

With all the supervision, inspection, and ever increasing response of parents to their responsibility, there still exists a considerable amount of subnormal nutrition in school children. No Medical Inspector can fail to notice this. The instances are not always striking, requiring logging and immediate action, the difficulty being that malnutrition cannot be registered like an organic defect. It is not an event but a process. This existence of malnutrition is in spite of all that is being done, provision of cheap milk, canteen dinners, the physical exercises now being an integral part of education, the improvement in home conditions consequent on better wages and the result of the education of parents.

The subnormally nourished child may be so from one or more of the following causes :—

1. Lack of fresh air and sunlight for proper oxygenation of blood.
2. Lack of daily exercise and rest.
3. Insufficient or unsuitable food.
4. Presence of disease.

Prolonged unemployment and acute industrial distress produce dislocated, poverty stricken and anxious homes and of course very malnourished children. The existence of this factor, however, in my district is rare.

The following observations are directed to malnutrition in which lack of sufficient sleep is either the cause or a contributory factor. The attention of observers has been lately directed to relation between sleep and nutrition. There is no doubt that they are intimately connected.

The amount of sleep required by children varies according to age and individual idiosyncracy, and graphs exist showing relative amount of sleep required. At any rate an abnormally small amount of sleep is very bad for the child, even when there are no obvious signs of ill-health or poor nutrition.

The modern tendency is to allow children to remain up too long in the evening. Twenty years ago the family in a labourer's country cottage retired to bed at 8·30 p.m. and even earlier in the winter. There was nothing else to do. At the present time the wireless amuses them until 9 or 10 o'clock, and even in well conducted houses where the children are packed off to bed at proper time, the noise of wireless, etc., keeps them awake or semi-awake for two or three hours. Apart from the general tendency of later hours, there is a factor which robs millions of children of an hour's bed and millions more of an hour's sleep every night during a considerable portion of the year. The bedtime of children has been retarded, from time immemorial, by the natural lengthening of the day in summer. It is now retarded by a further hour from April to October by an artificial lengthening of the day.

Children go to bed by the sun and get up the following morning by the clock. The house does not settle down for the night so soon. Noises in the street go on longer as well as activity in the fields nearby, and the child does not begin his recuperative rest until 10 o'clock or after, even if he has been induced to come in and go to bed.

At 6 o'clock the next morning the inexorable clock says it is 7 and the child, incompletely refreshed, must rise for school.

There can be few adults who have not felt the effects of the change especially for the first few days. Its influence on children is immeasurably greater. The child cannot be expected to ignore the change in the clock and to go to bed at his usual hour unless he is compelled to do so, and if he is so compelled he is kept awake by his less disciplined playmates.

The teaching staff are in the best position to judge and observe signs of lack of sleep in school children. Such signs are irritability, touchiness, peevishness, or fidgetiness, inattention or lack of interest in work, lethargy, sleepiness or other signs of fatigue. These are the more immediate signs of insufficient sleep which can be noticed before any actual interference with nutrition can be established. Pressure to do the necessary work aggravates the symptoms. To each head teacher in my district the following question was put, " Apart from your personal predilection or tastes in the matter, do you, during the period when summer time is in operation notice any difference in the appearance, behaviour and response of your children, particularly in the first hours of the day ? " In over a hundred schools there were only two where the direct negative was returned to this question. Of these two, one was a school where the children are drawn almost entirely from an adjacent barracks and come from well disciplined military homes in which one would expect rigid bed-hours to be observed.

No attempt is made to give all the answers received, but a few are given which are typical of the others.

Junior boys' school.—" The change is detrimental to work in every subject. The depreciation of work during summer time is very apparent."

A county school.—" The children are tired every day. Some of them walk miles against a head wind or in bad weather. Summer time makes things worse—the smaller ones arriving at school flop in a desk, exhausted." A bus has been provided for these children recently.

A marsh school.—" Sleepiness is very noticeable during the period of summer time. If the hour of opening school could be put back to 10 a.m. it would be better."

A village school.—" There is drowsiness, sleepiness and inattention up to drill period. Children from remote lonely cottages not so much affected. Father has to get up at 5 a.m. so that all the family go to bed early. I do not think that opening school at 10 a.m. would do much good."

A country school.—" The children are as tired as dogs in the morning. It is a job to get them to work."

Another country school.—" It particularly affects infants. They are very tired and unresponsive in the morning."

A large urban infant school.—" They are tired and dreamy. Don't wake up till 10 a.m. It is playtime that wakes them up. The fatigue is quite noticeable, it would be obvious to a stranger, when they line up for assembly at 9 o'clock. It becomes apparent a week after summer time begins. I see mothers about individual cases from time to time. They all say that street noises, playing children, and the wireless next door make it useless to send their children to bed at the proper hour."

A very large mixed and infant school.—" Parents don't play the game, and it is a rarity for one of my children to go to bed at the proper time during summer time. They yawn and wander and it is difficult to get them to wake up. I have noticed it each year for 15 years."

A small county school.—" It is very noticeable at first. They get accustomed to it later and I do not remark it so much."

I have put the following question to hundreds of parents (mostly maternal) of children attending elementary school " Do you like Daylight Saving ? " There is only one reply to this question that I have ever got. It is always negative, often eloquent and sometimes very expressive. " I cannot get my children to go to bed. With the best will in the world it can't be done. Other children are out and about. Front and back of the house are noises, and if I make myself thoroughly unpopular and insist on bed the children cannot sleep."

The children under 5 are not so much affected. They go to bed more readily and can lie longer when morning comes.

There cannot be any doubt, that most children lose rest or sleep every day, through the operation of Summer Time. If sufficient sleep is intimately related to efficient nutrition, it must be inevitable that defect in the malnourished is aggravated by summertime.

There are, of course, numerous children who are not obviously affected, but it cannot be gainsaid that even they would be the better in health and nutrition for the extra hour.

The object of the enquiry is to point out that in any attempt to make a national estimate of nutrition of school children (and there are signs that such an attempt is imminent), it will be absolutely essential to take into consideration the effects of summertime.

Numerous suggestions could be made and have been made of means whereby the ill effects can be counteracted. Talks to mothers, instruction to children, are not, in my opinion, of very much use, while human nature is what it is. Some years ago, I suggested a children's curfew, that at a given hour the Church or Town Hall clock should warn all children to be indoors. A more practical method would be, I trust, to retard the opening school hour throughout the county from 9 to 10 a.m. This would put the sleeping hours of the child partly but not completely right. The school would of course go on for an hour later in the afternoon, and I think that the children who need it most would probably benefit to a considerable extent by the extra hour in the morning.

Miscellaneous.

EXAMINATIONS OF ASSISTANT MASTERS, MISTRESSES, OFFICIAL STAFF, ETC. During the year the assistant school medical officers examined 371 assistant masters and mistresses, candidates for scholarships, and members of the staff.

NECESSITOUS CASES : During 1936, the Committee gave assistance to the undermentioned necessitous cases :—

Provision of travelling expenses	157 cases.
Provision of Spectacles	216 cases.

TABLE 9

MEDICAL INSPECTIONS OF CHILDREN ATTENDING PUBLIC ELEMENTARY SCHOOLS.

A.—Routine Medical Inspections.

NUMBER OF INSPECTIONS IN THE PRESCRIBED GROUPS.

Entrants	10,611
Second Age Group	8,800
Third Age Group	9,256
Total	28,667
Number of other Routine Inspections	—
Grand Total	28,667

B.—Other Inspections.

Number of Special Inspections	6,598
Number of Re-Inspections	26,869
Total	33,467

C.—Children Found to Require Treatment.

Number of INDIVIDUAL Children found at Routine Medical Inspection to Require Treatment (excluding Defects of Nutrition, Uncleanliness and Dental Diseases).

Group.	Total.
ENTRANTS	1,692
SECOND AGE GROUP	1,298
THIRD AGE GROUP	1,127
TOTAL (PRESCRIBED GROUPS)	4,117
OTHER ROUTINE INSPECTIONS	—
GRAND TOTAL	4,117

TABLE 10

A.—Return of Defects found by Medical Inspection in the Year ended 31*st December,* 1936.

	DEFECT OR DISEASE.	ROUTINE INSPECTIONS.		SPECIAL INSPECTIONS.	
		No. of Defects.		No. of Defects.	
	(1)	Requiring treatment. (2)	Requiring to be kept under observation, but *not* requiring Treatment. (3)	Requiring treatment. (4)	Requiring to be kept under observation, but *not* requiring Treatment. (5)
Skin	(1) Ringworm—Scalp	5	—	10	—
	(2) ,, Body	2	—	25	—
	(3) Scabies	17	—	99	—
	(4) Impetigo	30	3	640	—
	(5) Other Diseases (Non-Tuberculous)	89	48	466	2
	TOTAL (Heads 1 to 5)	143	51	1,240	2
Eye	(6) Blepharitis	96	114	80	5
	(7) Conjunctivitis	19	11	59	—
	(8) Keratitis	—	—	1	—
	(9) Corneal Opacities	1	1	2	—
	(10) Other Conditions (excluding Defective Vision and Squint)	38	72	68	2
	TOTAL (Heads 6 to 10)	154	198	210	7
	(11) Defective Vision (excluding Squint)	846	678	374	54
	(12) Squint	167	111	40	3
Ear	(13) Defective Hearing	114	163	104	10
	(14) Otitis Media	70	29	73	2
	(15) Other Ear Diseases	66	161	100	17
Nose and Throat	(16) Chronic Tonsillitis only	506	1,442	315	29
	(17) Adenoids only	279	279	148	27
	(18) Chronic Tonsillitis and Adenoids	1,055	754	412	27
	(19) Other Conditions	100	349	125	25
	(20) Enlarged Cervical Glands (Non-Tuberculous)	63	508	59	15
	(21) Defective Speech	22	81	7	3
Heart and Circulation	(22) Organic	20	20	15	2
	(23) Functional	21	260	10	12
	(24) Anæmia	116	183	86	8
Lungs	(25) Bronchitis	72	114	124	3
	(26) Other Non-Tuberculous Diseases	29	194	45	12
Tuberculosis	Pulmonary :—				
	(27) Definite	1	—	—	—
	(28) Suspected	3	2	5	—
	Non-Pulmonary :—				
	(29) Glands	4	6	8	—
	(30) Bones and Joints	1	4	7	—
	(31) Skin	1	—	—	—
	(32) Other Forms	—	7	—	—
	TOTAL (Heads 29 to 32)	6	17	15	—
Nervous System	(33) Epilepsy	7	18	14	—
	(34) Chorea	14	15	25	4
	(35) Other Conditions	47	102	59	9
Deformities	(36) Rickets	5	6	4	—
	(37) Spinal Curvature	88	127	30	9
	(38) Other Forms	298	592	65	23
	(39) Other Defects and Diseases (excluding Defects of Nutrition, Uncleanliness and Dental Diseases)	472	1,465	2,116	81
	TOTAL NUMBER OF DEFECTS	4,784	7,919	5,820	384

B.—Classification of the Nutrition of Children Inspected during the year in the Routine Age Groups.

Age-groups	Number of Children Inspected	A (Excellent)		B (Normal)		C (Slightly subnormal)		D (Bad)	
		No.	%	No.	%	No.	%	No.	%
Entrants	10,571	1,556	14·7	7,961	75·3	985	9·3	69	0·7
Second Age-group ...	8,687	1,218	14·0	6,422	74·0	988	11·4	59	0·7
Third Age-group ...	7,880	1,581	20·1	5,392	68·4	838	10·6	69	0·9
Other Routine Inspections	—	—	—	—	—	—	—	—	—
TOTAL	27,138	4,355	16·0	19,775	72·9	2,811	10·4	197	0·7

Table 11—*Return of all Exceptional Children in the Area.*

BLIND CHILDREN.

At Certified Schools for the Blind.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
10	—	—	1	11

PARTIALLY SIGHTED CHILDREN.

At Certified Schools for the Blind.	At Certified Schools for the Partially Sighted.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
3	36	11	2	9	61

DEAF CHILDREN.

At Certified Schools for the Deaf.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
23	2	—	6	31

PARTIALLY DEAF CHILDREN.

At Certified Schools for the Deaf.	At Certified Schools for the Partially Deaf.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
3	7	3	—	1	14

MENTALLY DEFECTIVE CHILDREN.

Feeble-Minded Children.

At Certified Schools for Mentally Defective Children.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
87	201	4	97	389

EPILEPTIC CHILDREN.

Children Suffering from Severe Epilepsy.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
6	9	—	8	23

PHYSICALLY DEFECTIVE CHILDREN.

A.—Tuberculous Children.

(1) *Children Suffering from Pulmonary Tuberculosis (including pleura and intra-thoracic glands).*

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
9	20	6	—	35

(2). *Children Suffering from Non-Pulmonary Tuberculosis.*

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
49	124	13	1	187

B.—Delicate Children.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
107	83	1	—	191

C.—Crippled Children.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
71	29	2	19	121

D.—Children with Heart Disease.

At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
25	9	—	7	41

CHILDREN SUFFERING FROM MULTIPLE DEFECTS.

Combination of Defect.	At Certified Special Schools.	At Public Elementary Schools.	At other Institutions.	At no School or Institution.	Total.
Feeble-minded and Cripple ...	1	6	—	6	13
Feeble-minded and Epileptic	3	2	—	3	8
Feeble-minded & Heart Disease	1	—	—	—	1
Cripple and Epileptic	—	—	—	1	1

TABLE 12

TREATMENT TABLES.

GROUP I.—MINOR AILMENTS (EXCLUDING UNCLEANLINESS, FOR WHICH SEE TABLE VI.).

Disease or Defect. (1)	Number of Defects treated, or under treatment during the year.		
	Under the Authority's Scheme. (2)	Otherwise. (3)	Total. (4)
Skin :			
Ringworm-Scalp :			
(i.) X-Ray Treatment.	20	—	20
(ii.) Other ,, ...	27	9	36
Ringworm-Body	64	7	71
Scabies	173	26	199
Impetigo	1,023	71	1,094
Other skin disease	466	16	482
Minor Eye Defects ... ... (External and other, but excluding cases falling in Group II.)	254	28	282
Minor Ear Defects	89	21	110
Miscellaneous ... ... (*e.g.*, minor injuries, bruises, sores, chilblains, etc.).	733	27	760
Total	2,849	205	3,054

GROUP II.—DEFECTIVE VISION AND SQUINT (EXCLUDING MINOR EYE DEFECTS TREATED AS MINOR AILMENTS—GROUP I.).

	No. of Defects dealt with.		
	Under the Authority's Scheme.	Otherwise.	Total.
Errors of Refraction (including squint).	1,986	120	2,106
Other defect or disease of the eyes (excluding those recorded in Group I)	—	2	2
Total	1,986	122	2,108
	Under the Authority's Scheme.	Otherwise.	Total.
No. of Children for whom spectacles were			
(*a*) Prescribed	1,497	110	1,607
(*b*) Obtained	1,430	110	1,540

GROUP III.—TREATMENT OF DEFECTS OF NOSE AND THROAT.

No. of Defects.													
Received Operative Treatment.												Received other forms of Treatment. (4)	Total number treated. (5)
Under the Authority's Scheme, in Clinic or Hospital. (1)				By Private Practitioner or Hospital, apart from the Authority's Scheme. (2)				Total. (3)					
(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)	(i)	(ii)	(iii)	(iv)		
191	98	730	—	58	44	235	—	249	142	965	—	2	1,358

(i) Tonsils only. (ii) Adenoids only. (iii) Tonsils and adenoids. (iv) Other defects of the nose and throat.

GROUP IV.—ORTHOPÆDIC AND POSTURAL DEFECTS.

	Under the Authority's Scheme. (1)			Otherwise. (2)			No. of Individual Children treated.
	Residential treatment with education. (i)	Residential treatment without education. (ii)	Non-residential treatment at an orthopædic clinic. (iii)	Residential treatment with education. (i)	Residential treatment without education. (ii)	Non-residential treatment at an orthopædic clinic. (iii)	
Number of children treated	43	55	845	2	1	—	878

Group V.—Dental Inspection and Treatment.

(1) Number of children inspected by the Dentist :				
	AGE	Number		
(a) Routine Age Groups	5	4,942	Total	31,726
	6	4,197		
	7	3,927		
	8	3,614		
	9	3,389		
	10	3,328		
	11	2,488		
	12	2,369		
	13	2,375		
	14	1,097		
(b) Specials		—		
(c) TOTAL (Routine and Specials)		31,726		
(2) Number found to require treatment		23,215		
(3) Number actually treated		9,836		
(4) Attendances made by children for treatment		29,760		
(5) Half-days devoted to	Inspection	429	Total	4,367
	Treatment	3,938		
(6) Fillings	Permanent Teeth	16,684	Total	19,053
	Temporary Teeth	2,369		
(7) Extractions	Permanent Teeth	5,548	Total	35,151
	Temporary Teeth	29,603		
(8) Administrations of general anæsthetics for extractions				920
(9) Other operations	Permanent Teeth	3,362	Total	4,745
	Temporary Teeth	1,383		

Group VI.—Uncleanliness and Verminous Conditions.

(i)	Average number of visits per school made during the year by the School Nurses	4·7
(ii)	Total number of examinations of children in the Schools by School Nurses	183,871
(iii)	Number of individual children found unclean	2,987
(iv)	Number of individual children cleansed under Section 87 (2) and (3) of the Education Act, 1921	—
(v)	Number of cases in which legal proceedings were taken :	
	(a) Under the Education Act, 1921	—
	(b) Under School Attendance Byelaws	14

GROUP VII.—RETURN OF OTHER DEFECTS TREATED DURING THE PERIOD 1ST JULY, 1935, TO 30TH JUNE, 1936.

	No. Treated or under Treatment.
Malnutrition...	431
Keratitis	—
Corneal Ulcer	1
Corneal Opacities	—
Other Eye Conditions	144
Defective Hearing	153
Otitis Media	137
Other Ear Defects	90
Nose and Throat (other conditions)	282
Enlarged Cervical Glands	106
Defective Speech	13
Heart :	
Organic	14
Functional	14
Anæmia	182
Debility	154
Lungs :	
Bronchitis...	141
Other	109
Tuberculosis, Pulmonary :	
Definite	—
Suspected	—
Tuberculosis, Non-Pulmonary :	
Glands	5
Spine	—
Hip	—
Other Bones and Joints	—
Other	—
Nervous System :	
Epilepsy	14
Chorea	29
Other	45
Other Defects and Diseases	933
Total	2,997

NOTE.—The figures in Groups IV, V and VI of this Table relate to the period 1st January, 1936, to 31st December, 1936

Table 13 (*Board of Education Table I*).

MAINTAINED, AIDED, JUNIOR TECHNICAL, JUNIOR COMMERCIAL, DAY TRADES AND PRIVATE SCHOOLS.

Number of Children Inspected 1*st January*, **1936**, *to* 31*st December*, **1936**.

A.—ROUTINE MEDICAL INSPECTIONS.

Age.	4	5	6	7	8	9	10	11	12
Boys	—	1	4	9	50	70	94	811	412
Girls	3	26	23	17	78	99	154	613	213
Totals	3	27	27	26	128	169	248	1,424	625

Age.	13	14	15	16	17	18	19	Totals.
Boys	333	1,303	176	1,432	63	13	6	4,777
Girls	168	1,126	172	1,127	24	11	3	3,857
Totals	501	2,429	348	2,559	87	24	9	8,634

B.—SPECIAL INSPECTIONS.

Boys	243
Girls	126
Total	369

Re-examinations (both sexes)	6,466

Table 14 (*Board of Education Table II*).

MAINTAINED, AIDED, JUNIOR TECHNICAL, JUNIOR COMMERCIAL, DAY TRADES AND PRIVATE SCHOOLS.

A.—Return of Defects found by Medical Inspection in the Year ended 31*st December*, 1936.

Defect or Disease. (1)		Routine Inspections. No. of Defects. Requiring treatment. (2)	Routine Inspections. No. of Defects. Requiring to be kept under observation but not requiring treatment. (3)	Special Inspections. No. of Defects. Requiring treatment. (4)	Special Inspections. No. of Defects. Requiring to be kept under observation but not requiring treatment. (5)
Skin	Ringworm :				
	Scalp	—	—	—	—
	Body	—	—	—	—
	Scabies	—	—	—	—
	Impetigo	1	1	—	—
	Other Diseases (Non-Tuberculous)	47	27	—	—
Eye	Blepharitis	15	11	—	—
	Conjunctivitis	7	3	—	—
	Keratitis	—	—	—	—
	Corneal Opacities	—	1	—	—
	Defective Vision	526	394	6	—
	Squint	10	2	—	—
	Other Conditions	12	28	—	—
Ear	Defective Hearing	17	40	—	—
	Otitis Media	5	7	—	—
	Other Ear Diseases	8	15	—	—
Nose and Throat	Chronic Tonsillitis only	34	92	—	—
	Adenoids only	14	28	—	—
	Chronic Tonsillitis and Adenoids	43	75	4	—
	Other Conditions	30	85	—	—
Enlarged Cervical Glands (Non-Tuberculous)		7	46	—	—
Defective Speech		3	14	—	—
Heart and Circulation	Heart Disease :				
	Organic	11	15	—	—
	Functional	25	127	—	—
	Anæmia	42	55	1	—
Lungs	Bronchitis	8	14	—	—
	Other Non-Tuberculous Diseases	12	50	—	—
Tuberculosis	Pulmonary :				
	Definite	—	1	—	—
	Suspected	—	1	—	—
	Non-pulmonary :				
	Glands	—	5	—	—
	Bones and Joints	—	1	—	—
	Skin	—	—	—	—
	Other Forms	—	1	—	—
Nervous System	Epilepsy	1	2	—	—
	Chorea	2	2	—	—
	Other Conditions	11	17	—	—
Deformities	Rickets	—	2	—	—
	Spinal Curvature	71	107	—	1
	Other Forms	305	703	—	1
Other Defects and Diseases		103	267	2	—
Total		1,370	2,239	13	2

B.—Classification of the Nutrition of the Pupils.

(SECONDARY AND TECHNICAL SCHOOLS.)

Year of Birth	No. examined	A. (Excellent).		B. (Normal).		C. (Slightly sub-normal).		D. (Bad).	
		No.	%	No.	%	No.	%	No.	%
1932	3	1	33·3	2	66·7	—	—	—	—
1931	27	7	25·9	19	70·4	1	3·7	—	—
1930	27	7	25·9	19	70·4	1	3·7	—	—
1929	26	2	7·7	24	92·3	—	—	—	—
1928	128	28	21·8	91	71·2	9	7·0	—	—
1927	169	21	12·4	130	76·8	17	10·0	1	0·8
1926	248	31	12·5	192	77·5	25	10·0	—	—
1925	1,424	250	17·6	1,034	72·5	139	9·8	1	0·1
1924	625	133	21·3	435	69·6	56	8·9	1	0·2
1923	501	88	17·6	370	73·8	42	8·4	1	0·2
1922	2,429	550	22·6	1,718	70·8	160	6·6	1	—
1921	348	108	31·0	218	62·7	22	6·3	—	—
1920	2,559	712	27·8	1,730	67·5	116	4·7	1	—
1919	87	24	27·6	62	71·3	1	1·1	—	—
1918	24	10	41·7	13	54·2	1	4·1	—	—
1917	9	1	11·1	8	88·9	—	—	—	—
Total	8634	1973	22.9	6065	70.2	590	6.8	6	0.1

Table 15 (*Board of Education Table IV*).

MAINTAINED, AIDED, JUNIOR TECHNICAL, JUNIOR COMMERCIAL, DAY TRADES AND PRIVATE SCHOOLS.

Return of Defects treated during the period July 1*st*, 1935, *to June* 30*th*, 1936.

GROUP I.—MINOR AILMENTS (EXCLUDING UNCLEANLINESS).

Disease or Defect. (1)	Number of Defects treated or under Treatment during the Year. Under the Authority's Scheme. (2)	Otherwise. (3)	Total. (4)
Skin—			
Ringworm—Scalp	—	—	—
Ringworm—Body	—	1	1
Scabies	—	—	—
Impetigo	—	—	—
Other Skin Diseases	—	34	34
Minor Eye Defects—			
External and other, but excluding cases falling in Group II	—	21	21
Minor Ear Defects	—	7	7
Miscellaneous—			
e.g., minor injuries, bruises, sores, chilblains, etc. ...	—	—	—
Total	—	63	63

GROUP II.—DEFECTIVE VISION AND SQUINT (EXCLUDING MINOR EYE DEFECTS TREATED AS MINOR AILMENTS—GROUP I).

Defect or Disease. (1)	Number of Defects dealt with. Under the Authority's Scheme. (2)	Submitted to refraction by Private Practitioner or at Hospital apart from the Authority's Scheme. (3)	Otherwise. (4)	Total. (5)
Errors of Refraction (including Squint)	260	309	89	658
Other Disease or Defect of the Eyes (excluding those recorded in Group I)	—	—	—	—
Total	260	309	89	658

Total number of children for whom spectacles were prescribed :

(*a*) Under the Authority's Scheme	188
(*b*) Otherwise	352

Total number of children who obtained or received spectacles :

(*a*) Under the Authority's Scheme	178
(*b*) Otherwise	350

GROUP III.—TREATMENT OF DEFECTS OF NOSE AND THROAT.

	Number of Defects.				
	Received Operative Treatment.				
(1)	Under the Authority's Scheme in Clinic or Hospital. (2)	By Private Practitioner or Hospital, apart from Authority's Scheme. (3)	Total. (4)	Received other forms of Treatment. (5)	Total Number Treated. (6)
Chronic Tonsillitis ...	2	10	12	5	17
Adenoids	—	4	4	1	5
Chronic Tonsillitis and Adenoids	6	18	24	2	26
Other Defects	—	6	6	2	8
Totals	8	38	46	10	56

GROUP IV.—TREATMENT OF OTHER DEFECTS.

	Cases Treated or Under Treatment.
Malnutrition	26
Ears—	
Defective Hearing	8
Otitis Media	1
Other Ear Conditions	4
Nose and Throat (other than enlarged tonsils, etc.)	20
Enlarged Cervical Glands	3
Defective Speech	—
Defective Teeth	955
Heart—	
Organic	—
Functional	18
Anæmia	25
Lungs (other than bronchitis)	11
Tuberculosis, Pulmonary—	
Definite	—
Suspected	—
Tuberculosis, Non-Pulmonary	2
Nervous System—	
Chorea	—
Other	8
Deformities—	
Rickets	—
Spinal Curvature	84
Other Forms	321
Debility	—
Other Defects and Diseases	105
Total	1,591